

**EUR 532.e**

EUROPEAN ATOMIC ENERGY COMMUNITY - EURATOM

**A MULTI-DIMENSIONAL, MULTIGROUP,  
MULTIREGION, NEUTRON DIFFUSION CODE**  
(Iterative-Variational Approach)

by

M. LUNELLI and G. MAGGIONI  
(Università di Milano)

1964



Work prepared by the Istituto di Fisica Teorica  
(Gruppo Ricerche Applicazioni Scientifiche)

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Brussels, February 1964 — 170 pages

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convenient functionals, and then the reduction of these stationary conditions to algebraic equations through the choice of a convenient system of basic functions (in this case trigonometric functions). This code has been tested through comparison of results with WHIRLAWAY ones. These results agree very well, especially in the case of the eigenvalue. Compared with WHIRLAWAY, LOUISE III requires a far smaller execution time.

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## F O R E W O R D

This program, called LOUISE III, is written in Fortran, for an electronic computer having, at least, 30K memory positions and seven magnetic tapes (5, 6, NA, NB, NC, ND, NE), two of which are employed for reading input data (tape number 5) and for writing the results (tape number 6).

This program has been written in Fortran Monitor for the computer IBM 7090; it is an extension of two existing programs (LOUISE I and LOUISE II\*) for solving problems related to multi-dimensional diffusion differential equations.

-           We are indebted to Prof. Sergio Albertoni           -  
            for the problem suggestion and for the  
            constant interest.

\*Already developed by A.R.S. (Applicazioni e Ricerche Scientifiche) group by account CETIS (EURATOM-ISPRA) and labeled EUR-350i, EUR-351i



A MULTI-DIMENSIONAL, MULTIGROUP MULTIREGION,  
NEUTRON DIFFUSION CODE (ITERATIVE-VARIATIONAL APPROACH)

§ 1 - DIFFUSION DIFFERENTIAL EQUATIONS CONSIDERED IN THE  
LOUISE III CODE -

Our problem is the following one: the determination of the function  $\varphi^i(\bar{x})$ , where  $i = 1, 2, \dots, NG$ , ( $10 \geq NG \geq 2$  is the number of groups), and  $\bar{x}$  is a vector with  $x_k$  components,  $k = 1, 2, \dots, NS$  ( $1 \leq NS \leq 7$  are the space dimension), satisfying the following equation:

$$-D^i(\bar{x}) \sum_{k=1}^{NS} \frac{\partial^2 \varphi^i(\bar{x})}{\partial x_k^2} - \sum_{k=1}^{NS} \frac{\partial D^i(\bar{x})}{\partial x_k} \cdot \frac{\partial \varphi^i(\bar{x})}{\partial x_k} + A^i(\bar{x}) \varphi^i(\bar{x}) =$$

$$= \frac{\chi^i}{\lambda} \sum_{l=1}^{NG} B^l(\bar{x}) \varphi^l(\bar{x}) + C^i(\bar{x}) \varphi^{i-1}(\bar{x}) \quad (1)$$

$C^1(\bar{x}) = 0$ ;  $x_{0,k} \leq x_k \leq x_{NR,k}$ , ( $x_{0,k} = 0$  and  $x_{NR,k}$ , are fixed values) with the following boundary conditions for the  $\varphi^i(\bar{x})$  and their derivatives on the hyperplanes  $\bar{x}_{0,k}$ , whose equations are  $x_k = 0$ , and  $\bar{x}_{NR,k}$ , whose equations are  $x_k = x_{NR,k}$  ;

$$\varphi^i(\bar{x}_{NR,k}) = 0 \quad \left( \frac{\partial \varphi^i(\bar{x})}{\partial x_k} \right)_{\bar{x}=\bar{x}_{0,k}} = 0$$

$D^i(\bar{x}) \cdot \frac{\partial \varphi^i(\bar{x})}{\partial x_k}$  must be continuous functions of  $x_k$ , with  $x_{0,k} \leq x_k \leq x_{NR,k}$  where  $1 \leq NR \leq 25$  is the number of the regions (interface-boundary conditions).

For what concerns the functions  $D^i(\bar{x})$ ,  $A^i(\bar{x})$ ,  $B^i(\bar{x})$ ,  $C^i(\bar{x})$  and the coefficients  $\chi^i$  of the system (1), we regard them as constants on every region  $\tau_e$  defined as follows:

a) let  $\mathcal{T}$  be the space of the points  $\bar{x}$  satisfying the inequality  $x_{0,k} \leq x_k \leq x_{NR,k}$

b) Let  $\tau_\ell$  be the  $\ell$ -th region of this space formed by such points  $\bar{x}$  that, for  $1 \leq \ell \leq NR$ ,  $x_{\ell,k} \leq x_k \leq x_{\ell+1,k}$  where  $x_{\ell,k} < x_{\ell+1,k}$  and  $\tau_s \cap \tau_r = \emptyset$  (for  $s \neq r$ ) and  $\mathcal{T} = \bigcup_{\ell=1}^{NR} \tau_\ell$

Furthermore the following properties hold:

$$A^i(\bar{x}) \geq 0; B^i(\bar{x}) \geq 0; C^i(\bar{x}) \geq 0; D^i(\bar{x}) > 0; C^{NG}(\bar{x}) = 0$$

$$\text{and } \chi^i \geq 0; \sum_{i=1}^{NQ} \chi^i = 1, \chi^{NG} = 0, \chi^i > 0$$

We make use of the following approximation:

let  $\varphi^i(\bar{x}) = \sum_{j=1}^{\prod_{\nu=1}^{NS} N_\nu} \alpha_j^i F_j(\bar{x})$ , where  $F_j(\bar{x})$  satisfy the boundary conditions and are defined as follows:

$$F_j(\bar{x}) = \prod_{k=1}^{NS} \left( \frac{2}{x_{NR,k}} \right)^{\frac{1}{2}} \cos \left[ (2j_k - 1) \frac{\pi}{2} \frac{x_k}{x_{NR,k}} \right]$$

where:

$j_k$  is the  $k$ -th element of the set  $\mathcal{J}_j$  formed by  $NS$  elements, each of which is respectively included between 1 and  $N_\nu$  ( $\nu = 1, 2, \dots, NS$ ); satisfies the inequality  $1 \leq j \leq \prod_{\nu=1}^{NS} N_\nu$  and refers to all possible elements' combinations of the  $\mathcal{J}_j$  sets.

$N_\nu$  is the number of the harmonics, taken along the coordinate, by which  $\varphi^i(\bar{x})$  is approximated.

The numerical procedure is an iterative one, and gives the eigenvalue  $\lambda$  and the coefficients  $\alpha_j^i$

For a detailed description of the iterative method see the mentioned reports EUR-350i and EUR-351i.

This program calculates the values of fluxes in  $(DXT+1)^{NS}$  points, giving a suitable integer value to DXT. Fluxes are calculated also in the corners of each regions.

The iterative procedure stops when either the absolute value of the ratio,  $\frac{\lambda_{t+d} - \lambda_t}{\lambda_{t+d}}$ , (t is an iteration index) is less than a fixed number EPS, or the number of iterations exceeds a fixed quantity called ITE.

=====

## § 2 - INPUT DATA CARDS -

Input data deck consists of seven kinds of cards, which follow this scheme:

1-st kind

one card, in columns

1 - 2 is punched KOR(I2)                      Cases running number

2-nd kind

one card, in columns

2 - 72 is punched TITLE(12A6)              Title of the problem

3-rd kind

one card, in columns

1 - 4 is punched NS(I4)                      Space dimensions in cm

5 - 8 is punched NR(I4)                      Regions number

9 - 12 is punched NG(I4)	Groups number
13 - 16 is punched ITE(I4)	Greatest number of iterations
17 - 31 is punched DXT(F15.8)	Mesh intervals on each axis in cm
32 - 46 is punched EPS(F15.8)	Precision

4-th kind

one card, in columns

1 - 4 is punched N(1) (I4)	Harmonics number along $x_1$ axis
----------------------------	-----------------------------------

5 - 8 is punched N(2) (I4)	Harmonics number along $x_2$ axis
----------------------------	-----------------------------------

-----

(4k-3) - 4k is punched N(k) (I4)	Harmonics number along $x_k$ axis
----------------------------------	-----------------------------------

-----

25 - 28 is punched N(7) (I4)	Harmonics number along $x_7$ axis
------------------------------	-----------------------------------

The data N(k) (for  $NS+1 \leq k \leq 7$ ) may be omitted.

5-th kind

NR decks, each of them consists of NS cards. Each card is punched as follows: columns

1 - 15 XE1 (F15.8)	Lower limit of the interval on the k-th axis of the $\tau_\ell$ region in cm
--------------------	--

16 - 30 XE2 (F15.8)	Upper limit of the interval on the k-th axis of the $\tau_\ell$ region in cm
---------------------	--

$\ell = 1, 2, \dots, NR$  and  $k = 1, 2, \dots, NS$

6-th kind

NR decks, each of them consists of NG cards. Each card is punched as follows: columns

1 - 15 AD (F15.8)	ABS + REM, sum of macroscopic absorption cross section in $\text{cm}^{-1}$ and removal cross section for $i$ -th group and $\tau_\ell$ region
16 - 30 BD (F15.8)	NU FISS, product of the fission yield by the macroscopic fission cross section in $\text{cm}^{-1}$ for $i$ -th group and $\tau_\ell$ region
31 - 45 CD (F15.8)	REM, macroscopic removal cross section in $\text{cm}^{-1}$ for $(i-1)$ -th group and $\tau_\ell$ region
46 - 60 DD (F15.8)	DIFF, diffusion coefficient for $i$ -th group and $\tau_\ell$ region in cm

$$\ell = 1, 2, \dots, \text{NR and } i = 1, 2, \dots, \text{NG}$$

7-th kind

one card, in columns

1 - 7 is punched CHI(1) (F7.5)	Fission spectrum integral for the group 1
8 - 14 is punched CHI(2) (F7.5)	Fission spectrum integral for the group 2

-----

(7I-6) - 7I is punched CHI(I) (F7.5)	Fission spectrum integral for the group I
--------------------------------------	---

-----

64 - 70 is punched CHI(10) (F7.5)	Fission spectrum integral for the group 10
-----------------------------------	--

The data CHI(I) (for  $\text{NG}+1 \leq I \leq 10$ ) may be omitted

=====

statement number 7

$$\sum_{i=1}^{NG} \text{CHI}(i) \neq 1$$

Sum of fission spectra integral  $\neq 1$

statement number 8

NR > 25

Region number > 25

statement number 10

AM = 0

Element (p,p) null  $1 \leq p \leq \prod_{\gamma=1}^{NS} N_{\gamma}$

statement number 11

$$NG \cdot \prod_{\gamma=1}^{NS} N_{\gamma} > 2700$$

Alfa Vector dimension > 2700

statement number 12

NS > 7

Space dimension > 7

statement number 13

NG  $\leq 1$

Group number  $\leq 1$

statement number 41

Negative coordinate

statement number 42

Wrong coordinates reading\*

statement number 43

Inconsistent description\*\*

\*  $x_k(\gamma) > x_k(\gamma+1)$  ,  $x_k$  coordinates of the same region

$$** \left| \left( \prod_{k=1}^{NS} x_{NR,k} \right)^p - \sum_{\ell=1}^{NR} \prod_{k=1}^{NS} \left[ (x_{\ell,k}(\gamma+1))^p - (x_{\ell,k}(\gamma))^p \right] \right| > 5 \cdot 10^{-6} \quad , \quad p=1,2,\dots,10$$



§ 3 - CONTROLS -

This program has the possibility to stop the execution, when data are written in a wrong way, or when the number of memory positions, requested for storing the input data, exceeds the maximum available number of memory positions.

With this aim stop statements have been inserted, such that the computer does not go in the execution, and prints the following comments:

statement number 2

2.NS.NR.  $\sum_{k=1}^{NS} N_k^2 > 3000$       Vector A dimension > 3000

statement number 3

N44 < 1      Lines number in a single block < 1

statement number 4

CHI(NG)  $\neq$  0      Fission spectrum integral of group NG  $\neq$  0

statement number 5

2.NS.NR > 200      Table II dimension > 200

statement number 6

NG > 10      Group number > 10

§ 4 - OUTPUT -

Data are printed as follows:

Title

Dimension

Regions number - Groups number - Greatest number of iteration -

Mesh intervals each axis - Precision

Harmonics number along  $x_k$  axis ( $k = 1, 2, \dots, NS$ )

Title

Regions dimension

Title

Macroscopic constants for each region and each group

Title

Eigenvalue for each iteration

Title

Normalized coefficients of the  $\varphi^i(\bar{x})$  expansion for each group\*

\* The normalization factor is:

$$\sum_{i=1}^{NG} \sum_{j=1}^{\prod_{k=1}^{NS} N_k} \alpha_j^i \sum_{\ell=1}^{NR} B_{\ell}^i \prod_{k=1}^{NS} \frac{2}{\pi} (2 \cdot X_{NR,K})^{\frac{1}{2}} \cdot \frac{1}{2 \delta_j - 1} \cdot \left[ \sin \frac{(2 \delta_j - 1) \cdot X_{\ell,K}(\chi+1) \cdot \pi}{2 \cdot X_{NR,K}} - \sin \frac{(2 \delta_j - 1) \cdot X_{\ell,K}(\chi) \cdot \pi}{2 \cdot X_{NR,K}} \right]$$

Title

Flux values tabulated on the mesh points of a net having the path equal to  $x_{NR,k}/DXT$ ,  $k = 1, 2, \dots, NS$  along each axis

Title

Flux values calculated on the corners of each region

=====

#### § 5 - SAMPLE PROBLEM -

As sample problem we treat the same problem which can be found in Fowler-Tobias' WHIRLAWAY: "A three-dimensional, two-group neutron diffusion code for the IBM 7090 computer, ORNL-3150-".

For what concerns the eigenvalue, our results coincide with Fowler's ones within 3,3% if we use 3,1,1 harmonics along x, y, z respectively axis (see appendix 1).

Results become more exact if we use a greater number of harmonics; in fact if we use 10,1,1 harmonics, our results coincide with Fowler's ones within 3,0% ( see appendix 3).

In order to compare our fluxes with WHIRLAWAY ones we have normalized either LOUISE III fluxes or WHIRLAWAY fluxes in the following way: we considered a straight line and we divided each value of the flux, computed along this line, by

the maximum value of the flux along the same line (the straight line along which we normalized the fluxes was not exactly the same for WHIRLAWAY and LOUISE III, but this does not make a great difference, because these two lines were very near each other, and near these lines fluxes had about the same values) (see appendix 4).

In the case with 10,1,1 harmonics along respectively x,y,z axis the execution time, when fluxes are calculated in 1330 points, was 1' 47". WHIRLAWAY code need 8' inoorder to perform the same calculation.

The execution time is approximately proportional to  $\left(\prod_{t=1}^{NS} N_t\right)^3 \cdot NG$ . Obviously the execution time is strictly connected to the convergence velocity; in the examples that can be found herewith (see after) the maximum number of iterations was eight.

In order to be sure of the accuracy of the Fortran coding, the following consistency test have been made:

- a) we made two calculations for a reactor model<sup>†</sup> having interfaces only along  $x_1$  axis (no interfaces along  $x_2$  and  $x_3$  axis) respectively with 3,1,1 harmonics and 3,3,3 harmonics: the results almost coincide (see appendix 2),
- b) we have calculated a reactor with fixed physical constants, but different geometric subdivisions (see appendix 5).

Using 3,3,3 harmonics number along respectively x,y, and z axis, our eigenvalue coincide with WHIRLAWAY eigenvalue within 2,01%; in order to perform this calculation, WHIRLAWAY

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<sup>†</sup> - already used in appendix 1.

code needs  $\frac{1}{2}$  hour and LOUISE III needs only 6'.

It would be interesting to compare the number of harmonics (required by a finite-difference scheme) and the number of mesh points (required by a finite-difference scheme) in order to obtain approximations of the same order of magnitude with respect to the eigenvalue and to the fluxes.

With this aim it should be necessary to perform some calculations to be compared with the results obtained by other programs.

=====



## LISTING FORTRAN

```

*ID 97.5413.2540 MAGGIONI 2 247 12
C LOUISE III
  DIMENSION AD(10,25),BD(10,25),CD(10,25),DD(10,25),ALF(2700),X(200)
  DIMENSION A(3000),R(2700),S(2700),Q(2700),COMAX(7),CARLA(7),N(7)
  DIMENSION RM(1350),RN(1350),II(200),DA(700),DE(700),NTT(7),NTT2(7)
  DIMENSION ALFA(5),TITLE(12),CHI(10),YL(350),YLI(350)
  COMMON A,R,S,Q,ALF,RM,RN
5001 FORMAT (4I4,2F15.8)
5002 FORMAT (24H0 VECTOR A DIMENSION=,I5)
5003 FORMAT (24H0 TABLE II DIMENSION=,I5)
5004 FORMAT (19H0 GROUPS NUMBER=,I5)
5005 FORMAT (2CH0 REGIONS NUMBER=,I5)
5006 FORMAT (7I4)
5007 FORMAT (27H0 ALFA VECTOR DIMENSION=,I5)
5008 FORMAT (22H0 SPACE DIMENSIONS=,I5)
5009 FORMAT (2F15.8)
5010 FORMAT (4F15.8)
5011 FORMAT (10F7.5)
5012 FORMAT (12A6)
5013 FORMAT (36H0 LINES NUMBER IN A SINGLE BLOCK=,I5)
5014 FORMAT (39H0 SUM OF FISSION SPECTRA INTEGRALS =,F9.6)
5015 FORMAT (40H0 FISSION SPECTRUM INTEGRAL OF GROUP ,I2,1H=,F4.1)
5016 FORMAT (15H1 LOUISE III//4H ,12A6//)
5017 FORMAT (26H REGION X1 X2//)
5018 FORMAT (48H REGION X1 X2 Y1 Y2//)
5019 FORMAT (70H REGION X1 X2 Y1 Y2//)
5020 FORMAT (19,17,4(E19.8))
5021 FORMAT (18,E24.8)
5022 FORMAT (21H COEFFICIENTS (I)//41H I GROUP 1
1 GROUP 2//)
5023 FORMAT (23H COEFFICIENTS (I,J)//44H I J GROUP 1
1 GROUP 2//)
5024 FORMAT (25H COEFFICIENTS (I,J,K)//47H I J K GROUP
1 GROUP 2//)
5025 FORMAT (13H0 ELEMENT(,I5,1H,,I5,6H) NULL)
5026 FORMAT (38H ITERATION EIGENVALUE//)
5027 FORMAT (21H COEFFICIENTS (I)//60H I GROUP 1
1 GROUP 2 GROUP 3//)
5028 FORMAT (112,2(E20.8))
5029 FORMAT (19H0 GROUPS NUMBER=,I5)
5030 FORMAT (10H GROUP,I3//27H FLUX X//)
5031 FORMAT (22H0 ITERATION NUMBER=,I5)
5032 FORMAT (63H0
1 END)
5033 FORMAT (15H0 DIMENSION=,I2//19H REGIONS NUMBER=,I2,18H GR
1 OUPS NUMBER=,I2,24H //34H GREATEST NUMBE
2R OF ITERATIONS=,I3,32H MESH INTERVALS ON EACH AXIS=,F4.1,14H
3 PRECISION=,F8.6//)
5034 FORMAT (23H COEFFICIENTS (I,J)//63H I J GROUP 1
1 GROUP 2 GROUP 3//)
5035 FORMAT (86H REGION GROUP ABS+REM NU FISS
1 REM DIFF//)
5036 FORMAT (25H COEFFICIENTS (I,J,K)//66H I J K GROUP
1 GROUP 2 GROUP 3//)
5037 FORMAT (21H COEFFICIENTS (I)//79H I GROUP 1
1 GROUP 2 GROUP 3 GROUP 4//)
5038 FORMAT (23H COEFFICIENTS (I,J)//82H I J GROUP 1
1 GROUP 2 GROUP 3 GROUP 4//)
5039 FORMAT (1//38H GROUP FISSION SPECTRUM INTEGRAL//)
5040 FORMAT (25H COEFFICIENTS (I,J,K)//85H I J K GROUP
1 GROUP 2 GROUP 3 GROUP 4//)
5041 FORMAT (24H0 NEGATIVE COORDINATE)

```

```

5042 FORMAT(30H)      WRONG COORDINATES READING)
5043 FORMAT(29H)     INCONSISTENT DESCRIPTION)
5044 FORMAT (21H     COEFFICIENTS (I)//98H      I      GROUP 1      GROUP
1      GROUP 2      GROUP 3      GROUP 4      GROUP
2      5//)
5045 FORMAT (23H     COEFFICIENTS (I,J)//101H    I      J      GROUP 1
1      GROUP 2      GROUP 3      GROUP 4
2      GROUP 5//)
5046 FORMAT (25H     COEFFICIENTS (I,J,K)//104H  I      J      K      GROU
1      GROUP 2      GROUP 3      GROUP 4
2      GROUP 5//)
5047 FORMAT (16,5E19.8)
5048 FORMAT (3H     ,2I3,5E19.8)
5049 FORMAT (3H     ,3I3,5E19.8)
5050 FORMAT (10H     GROUP,I3//36H              FLUX              X              Y/
1//)
5051 FORMAT (10H     GROUP,I3//45H              FLUX              X              Y
1      Z//)
5052 FORMAT (12)
5053 FORMAT (10H     GROUP,I3//37H              REGION              FLUX              X
1//)
5054 FORMAT(E20.8,3(F9.2))
5055 FORMAT (10H     GROUP,I3//46H              REGION              FLUX              X
1      Y//)
5056 FORMAT(I9,E21.8,3(F9.2))
5057 FORMAT (10H     GROUP,I3//55H              REGION              FLUX              X
1      Y      Z//)
5058 FORMAT (34H)   HARMONICS NUMBER ALONG X AXIS,I2)
5059 FORMAT (34H)   HARMONICS NUMBER ALONG X AXIS,I2,7H,Y AXIS,I2)
5060 FORMAT (34H)   HARMONICS NUMBER ALONG X AXIS,I2,7H,Y AXIS,I2,7H,Z
1      AXIS,I2)
5061 FORMAT (13H)   VECTOR N//7I6)
5062 FORMAT (17H)   COEFFICIENTS//5(1X,E16.8,1X))
5063 FORMAT (13H)   VECTOR X//6F16.5)
5064 FORMAT(19,1H ,2(F9.2),4H ,2(F9.2),4H ,2(F9.2))
GO TO 7333

```

C  
C  
C

```

INPUT,OUTPUT AND CONTROLS (1)
2 WRITE OUTPUT TAPE 6,5002,NST
GO TO 1111
3 WRITE OUTPUT TAPE 6,5013,N44
GO TO 1111
4 WRITE OUTPUT TAPE 6,5015,NG,CHI(NG)
GO TO 1111
5 WRITE OUTPUT TAPE 6,5003,N471
GO TO 1111
6 WRITE OUTPUT TAPE 6,5004,NG
GO TO 1111
7 WRITE OUTPUT TAPE 6,5014,AAA
GO TO 1111
8 WRITE OUTPUT TAPE 6,5005,NR
GO TO 1111
10 WRITE OUTPUT TAPE 6,5025,KR,KR
GO TO 1111
11 WRITE OUTPUT TAPE 6,5007,N471
GO TO 1111
12 WRITE OUTPUT TAPE 6,5008,NS
GO TO 1111
13 WRITE OUTPUT TAPE 6,5029,NG
GO TO 1111
41 WRITE OUTPUT TAPE 6,5041
GO TO 1111

```



```

42 WRITE OUTPUT TAPE 6,5042
   GO TO 1111
43 WRITE OUTPUT TAPE 6,5043
   GO TO 1111
7333 READ INPUT TAPE 5,5052,KOR
     KOOR=0
910  KOOR=KOOR+1
     READ INPUT TAPE 5,5012,(TITLE(ISA),ISA=1,12)
     WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),ISA=1,12)
     READ INPUT TAPE 5,5001,NS,NR, NG,ITE,DXT,EPS
     READ INPUT TAPE 5,5006,(N(I),I=1,NS)
     DO 810 I2=1,NR
     DO 810 I1=1,NS
     READ INPUT TAPE 5,5009,XE1,XE2
     KX=2*I1-1+(I2-1)*NS*2
     X(KX)=XE1
810  X(KX+1)=XE2
     DO 811 I2=1,NR
     DO 811 I1=1,NG
     READ INPUT TAPE 5,5010,(A(K),K=1,4)
     AD(I1,I2)=A(1)
     BD(I1,I2)=A(2)
     CD(I1,I2)=A(3)
811  DD(I1,I2)=A(4)
     READ INPUT TAPE 5,5011,(CHI(K),K=1,NG)
     NST=0
     DO 20 IN=1,NS
20   NST=N(IN)*2+NST
     NST=NST*2*NR
     IF(NST-3000)1,1,2
     1  N471=NS*NR
     IF(N471-100)46,46,5
46   IF(NG-10)47,47,6
47   IF(NR-25)48,48,8
48   N471=1
     DO 21 IN=1,NS
21   N471=N471*N(IN)
     N471=N471*NG
     IF(N471-2700)50,50,11
50   IF(NS-7)51,51,12
51   IF(NG-1)13,13,52
52   NN72=NR*NS*2
     WRITE OUTPUT TAPE 6,5033,NS,NR, NG,ITE,DXT,EPS
     IF(NS-3)36,36,37
36   GO TO (26,23,24),NS
26   WRITE OUTPUT TAPE 6,5058,N(1)
     GO TO 25
23   WRITE OUTPUT TAPE 6,5059,N(1),N(2)
     GO TO 25
24   WRITE OUTPUT TAPE 6,5060,N(1),N(2),N(3)
     GO TO 25
37   WRITE OUTPUT TAPE 6,5061,(N(IRU),IRU=1,NS)
25   WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),ISA=1,12)
     IF(NS-3)5560,5560,5561
5561 WRITE OUTPUT TAPE 6,5063,(X(IVI),IVI=1,NN72)
     GO TO 5562
5560 GO TO (821,822,823),NS
821  WRITE OUTPUT TAPE 6,5017
     GO TO 884
822  WRITE OUTPUT TAPE 6,5018
     GO TO 884
823  WRITE OUTPUT TAPE 6,5019
884  DO 991 IKO=1,NR

```

```

      IK1=(IK0-1)*NS*2+1
      IK2=IK1+NS*2-1
991 WRITE OUTPUT TAPE 6,5064,IK0,(X(I4),I4=IK1,IK2)
5562 WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),ISA=1,12)
      WRITE OUTPUT TAPE 6,5035
      NG1=NG-1
      DO 994 IK1=1,NR
      DO 824 IK2=1,NG1
      IK3=IK2+1
824 WRITE OUTPUT TAPE 6,5020,IK1,IK2,AD(IK2,IK1),BD(IK2,IK1),CD(IK3,IK
1),DD(IK2,IK1)
994 WRITE OUTPUT TAPE 6,5020,IK1,NG,AD(NG,IK1),BD(NG,IK1),CC,DD(NG,IK1)
      WRITE OUTPUT TAPE 6,5039
      DO 825 IK=1,NG
825 WRITE OUTPUT TAPE 6,5021,IK,CHI(IK)
      I1=2*NS*NR
      DO 7301 I4=1,I1
      IF(X(I4))41,7301,7301
7301 CONTINUE
      DO 7302 I4=2,I1,2
      IF(X(I4)-X(I4-1))42,42,7302
7302 CONTINUE
      DO 7303 I4=1,NS
      COMAX(I4)=0.
      DO 7303 I5=1,NR
      I7=I4*2+(I5-1)*2*NS
      IF(COMAX(I4)-X(I7))7304,7303,7303
7304 COMAX(I4)=X(I7)
7303 CONTINUE
      DO 7305 I5=1,10
      XN1=1.
      DO 7306 I4=1,NS
      XN2=1.
      DO 7307 I3=1,I5
7307 XN2=XN2*COMAX(I4)
7306 XN1=XN1*XN2
      XN4=C.
      DO 7308 I4=1,NR
      XN5=1.
      DO 7309 I3=1,NS
      XN3=1.
      XN2=1.
      DO 7310 I2=1,I5
      I7=I3*2+(I4-1)*2*NS
      XN3=XN3*X(I7)
7310 XN2=XN2*X(I7-1)
7309 XN5=XN5*(XN3-XN2)
7308 XN4=XN4+XN5
      XN1=ABSF((XN1-XN4)/XN1)
      IF(XN1-0.000005)7305,7305,43
7305 CONTINUE
      IF(CHI(NG))4,53,4
53 AAA=C.
      DO 54 K3=1,NG
54 AAA=AAA+CHI(K3)
      A1=ABSF(AAA-1.)
      IF(A1-0.000005)55,55,7
55 NA=2
      NB=3
      NC=4
      ND=8
      NE=9

```

```

REWIND NA
REWIND NB
REWIND NC
REWIND ND
REWIND NE
NTT(1)=0
DO 29 IMO=1,NS
29 NTT(IMO+1)=NTT(IMO)+N(IMO)**2
N777=0

```

C  
C  
C

EVALUATION OF INTEGRALS IN EVERY FIELD (2)

```

L=1
M=1
DO 131 J3=1, NR
DO 124 J2=1, 2
DO 123 J1=1, NS
ABC=COMAX(J1)
NISA=N(J1)
DO 122 J=1, NISA
DO 122 K=1, NISA
C11=J-K
C11=C11*3.14159265
C12=J+K-1
C12=C12*3.14159265
C13=X(L+1)-X(L)
C14=X(L+1)
C15=C14-C13
C17=1.
C18=1.
IF(J2-1) 100, 100, 130
130 CBD=2.4674011/ABC**2
CC7=(2*J-1)*(2*K-1)
C17=CC7*CBD
C18=0.-C17
100 C16=(SINF(C12*C14/ABC)-SINF(C12*C15/ABC))/C12*C18
IF(J-K) 110, 120, 110
110 C17=(SINF(C11*C14/ABC)-SINF(C11*C15/ABC))/C11*C17
GO TO 121
120 C17=C13/ABC*C17
121 A(M)=C16+C17
122 M=M+1
123 L=L+2
124 L=L-2*NS
131 L=L+2*NS
NN2=1
DO 27 I=1, NS
27 NN2=NN2*N(I)
NC1=NN2*NG
N44=2700/NC1
IF(N44) 3, 3, 132
132 IF(N44-NN2) 133, 134, 134
134 N44=NN2
GO TO 136
133 NC2=NC1/N44
IF(NC1-NC2*N44) 135, 136, 135
135 N44=N44-1
GO TO 133
136 N4=N44*NC1
N41=N4/NG

```

C  
C  
C

EVALUATION OF MATRIX COEFFICIENTS FOR EVERY GROUP (3)

```

DO 400 I1=1,200
400 I1(I1)=1
   N5=0
   DO 28 I=1,NS
   28 N5=N5+N(I)**2
      N5=N5*2
470 DO 401 I2=1,N4
      R(I2)=0.
      S(I2)=0.
401 Q(I2)=0.
      DO 501 L1=1,NR
      K1=1
      K2=NS*L1*2
      K3=K2-NS*2+1
407 IF(K1-N41)427,427,500
427 B=1.
      C=0.
      DO 409 I2=1,NS
      I22=I2+K2-NS
      I222=I2+K3-1
      L2=I1(I222)+(L1-1)*N5+NTT(I2)+N(I2)*(I1(I22)-1)
      B=B*A(L2)
      C1=1.
      DO 408 I9=1,NS
      I99=I9+K2-NS
      I999=I9+K3-1
      L2=I1(I999)+(L1-1)*N5+NTT(I9)+N(I9)*(I1(I99)-1)
      IF(I9-I2)408,418,408
418 L2=L2+N5/2
408 C1=C1*A(L2)
409 C=C+C1
      RM(K1)=B
      RN(K1)=C
      K1=K1+1
      I1=K3
412 I1(I1)=I1(I1)+1
      KTD=(I1-1)/NS
      ILI=I1-KTD*NS
      IF(I1(I1)-N(ILI))407,407,413
413 I1(I1)=1
      I1=I1+1
      IF(I1-K2)412,412,500
500 DO 501 I4=1,NG
      I47=(I4-1)*N41
      DO 501 I3=1,N41
      I33=I3+I47
      R(I33)=R(I33)+AD(I4,L1)*RM(I3)+DD(I4,L1)*RN(I3)
      Q(I33)=Q(I33)+CD(I4,L1)*RM(I3)
501 S(I33)=S(I33)+BD(I4,L1)*RM(I3)
      WRITE TAPE NE,(R(I4),I4=1,N4)
      WRITE TAPE NA,(Q(I4),I4=1,N4)
      WRITE TAPE NA,(S(I4),I4=1,N4)
      IF(I1-K2)470,470,513
513 I28=2*N41
      NLE=NN2/N44
      NC2=2*NN2
      REWIND NA
      K2=N41

```

C  
C  
C  
MATRIX R REORGANISED FOR EVERY GROUP (4)  
DO 2104 KG=1,NG  
REWIND NE

```

DO 2104 I1=1,NLE
READ TAPE NE,(R(I4),I4=1,N4)
I11=(KG-1)*N4+1
I12=KG*N4+1
DO 1731 IR=I11,I12
IR1=IR-I11+1
1731 S(IR1)=R(IR)
2104 WRITE TAPE NC,(S(I4),I4=1,N4)
REWIND NC
REWIND NE

```

```

C
C   MATRIX INVERSION FOR EVERY GROUP (5)
C

```

```

DO 2370 KG=1,NG
DO 2110 I71=1,NLE
READ TAPE NC,(Q(I4),I4=1,N4)
DO 9914 I91=1,N44
KRB1=(I91-1)*NN2
KRB2=KRB1*2
KRI=(I71-1)*N44+I91
DO 9911 I92=1,NN2
KRS=KRB2+I92+NN2
R(KRS)=0.
KK1=KRB2+I92
KK2=KRB1+I92
9911 R(KK1)=Q(KK2)
KK3=KRB2+KRI+NN2
R(KK3)=1.
IF(KRI-1)9914,9912,9914
9912 DO 9113 I4=1,NC2
9913 DE(I4)=R(I4)
9914 CONTINUE
2110 WRITE TAPE NB,(R(I4),I4=1,I28)
REWIND NB
I1=0
DO 2374 KR=1,NN2
3349 DO 1109 I2=1,NC2
1109 DA(I2)=DE(I2)
AM=DA(KR)
IF(AM)1237,10,1237
1237 DO 1227 I7=1,NC2
1227 DA(I7)=DA(I7)/AM
DO 2339 I11=1,NLE
IF(I1)2327,2327,2328
2327 READ TAPE NB,(R(I4),I4=1,I28)
GO TO 2326
2328 READ TAPE NE,(R(I4),I4=1,I28)
2326 DO 1238 I10=1,N44
I24=(I11-1)*N44+I10-KR
I9=(I10-1)*NC2
IF(I24)1131,1132,1131
1132 DO 1134 I=1,NC2
I9I=I9+I
1134 R(I9I)=DA(I)
GO TO 1136
1131 I9K=I9+KR
BM=R(I9K)
IF(BM)1222,1136,1222
1222 DO 1130 I=1,NC2
M1=I9+I
1130 R(M1)=R(M1)-BM*DA(I)
1136 IF(I24-1)1238,1248,1238
1248 IF(KR-MN2)1251,1238,1238

```

```

1251 DO 1348 I=1,NC2
      IJ=I9+I
1348 DE(I)=R(IJ)
1238 CONTINUE
      IF(I1)2337,2337,2338
2337 WRITE TAPE NE,(R(I4),I4=1,I28)
      GO TO 2339
2338 WRITE TAPE NB,(R(I4),I4=1,I28)
2339 CONTINUE
      I1=I1+1
      IF(I1-1)2341,2340,2341
2341 I1=0
2340 REWIND NE
2374 REWIND NB
2347 DO 2351 I71=1,NLE
      IF(I1)2349,2349,2348
2348 READ TAPE NE,(R(I4),I4=1,I28)
      GO TO 2354
2349 READ TAPE NB,(R(I4),I4=1,I28)
2354 DO 2352 KS1=1,N44
      KS3=(KS1-1)*NN2
      DO 2352 KS2=1,NN2
      KSS1=KS3+KS2
      KSS2=KS3*2+KS2+NN2
2352 Q(KSS1)=R(KSS2)
2351 WRITE TAPE ND,(Q(I4),I4=1,N41)
2360 REWIND NB
2370 REWIND NE
      REWIND ND
C
C   MATRIX S AND Q REORGANISED FOR EVERY GROUP (6)
C
      DO 3003 I2=1,NG
      DO 3002 I=1,NLE
      READ TAPE NA,(Q(I4),I4=1,N4)
      I3=(I2-1)*N41+1
      I5=I2*N41
      IF(I2-1)3000,3000,3001
3001 WRITE TAPE NE,(Q(I4),I4=13,15)
3000 READ TAPE NA,(S(I4),I4=1,N4)
3002 WRITE TAPE NB,(S(I4),I4=13,15)
3003 REWIND NA
      REWIND NE
      REWIND NB
      ZC=1.
      DO 3004 I=1,NN2
      YL(I)=1.
3004 WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),(SA=1,I2)
      WRITE OUTPUT TAPE 6,5026
C
C   ITERATIVE METHOD (7)
C
      KOK=1
3075 DO 3005 I=1,NN2
3005 YL1(I)=YL(I)*CHI(1)/Z0
      DO 3006 I=1,NLE
      READ TAPE ND,(R(I4),I4=1,N41)
      DO 3006 I1=1,N44
      K61=(I-1)*N44+I1
      ALF(K61)=0.
      DO 3006 I2=1,NN2
      K62=I2+(I1-1)*NN2
3006 ALF(K61)=ALF(K61)+YL1(I2)*R(K62)

```

```

DO 3009 I7=2,NG
DO 3007 I=1,NLE
READ TAPE NE,(Q(I4),I4=1,N41)
DO 3007 I2=1,N44
K63=I2+(I-1)*N44
YL1(K63)=0.
DO 3007 I3=1,NN2
K64=(I2-1)*NN2+I3
K65=(I7-2)*NN2+I3
3007 YL1(K63)=YL1(K63)+ALF(K65)*Q(K64)
DO 3008 I9=1,NN2
3008 YL1(I9)=YL1(I9)+YL(I9)*CHI(I7)/Z0
DO 3009 I=1,NLE
READ TAPE ND,(R(I4),I4=1,N41)
DO 3009 I2=1,N44
K63=(I7-1)*NN2+I2+(I-1)*N44
ALF(K63)=0.
DO 3009 I3=1,NN2
K64=I3+(I2-1)*NN2
3009 ALF(K63)=ALF(K63)+YL1(I3)*R(K64)
REWIND NE
REWIND ND
DO 4010 I=1,NN2
4010 YL1(I)=0.
DO 3011 I1=1,NG
DO 3011 I2=1,NLE
READ TAPE NB,(S(I4),I4=1,N41)
DO 3011 I3=1,N44
K68=I3+(I2-1)*N44
DO 3011 I4=1,NN2
K69=I4+(I1-1)*NN2
K67=I4+(I3-1)*NN2
3011 YL1(K68)=YL1(K68)+ALF(K69)*S(K67)
ABC=0.
ABD=0.
DO 3012 I=1,NN2
ABC=ABC+YL(I)*YL1(I)
3012 ABD=ABD+YL(I)*YL(I)
Z1=ABC/ABD*Z0
EP=ABSF((Z1-Z0)/Z0)
N777=N777+1
IF(KOK-40)826,827,826
827 WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),ISA=1,12)
WRITE OUTPUT TAPE 6,5026
KOK=1
826 WRITE OUTPUT TAPE 6,5028,N777,Z0,Z1
KOK=KOK+1
IF(N777-ITE)3113,3113,22
22 WRITE OUTPUT TAPE 6,5031,N777
GO TO 3015
3113 IF(EP-EPS)3015,3015,3013
3013 Z0=Z1
DO 7314 I4=1,NN2
7314 YL(I4)=YL1(I4)
REWIND NB
GO TO 3075

C
C EVALUATION OF FLUXES IN EVERY REGION (8)
C
3015 CONTINUE
NTD=CXT+1.
NTT2(I)=1
DO 8301 I=1,NS

```

```

8301 NTT2(I+1)=NTT2(I)*N(I)
      RT=C.
      DO 8302 I=1,NG
      DO 8303 K=1,NS
8303  II(K)=1
8310  L21=1
      DO 8304 K1=1,NS
8304  L21=L21+(II(K1)-1)*NTT2(K1)
      L21=L21+(I-1)*NN2
      RT2=0.
      DO 8305 J=1,NR
      RT3=1.
      DO 8306 K=1,NS
      AL31=2*II(K)-1
      L33=K*2+2*NS*(J-1)
8306  RT3=RT3/1.57079632*SQRTF(2.*COMAX(K))/AL31*(SINF(AL31*1.57079632/C
      COMAX(K)*X(L33))-SINF(AL31*1.57079632/COMAX(K)*X(L33-1)))
8305  RT2=RT2+RT3*BD(I,J)
      RT=RT+RT2*ALF(L21)
      M=1
8312  II(M)=II(M)+1
      IF(II(M)-N(M))8310,8310,8311
8311  II(M)=1
      M=M+1
      IF(M-NS)8312,8312,8302
8302  CONTINUE
      DO 8801 I=1,NG
      DO 8801 K1=1,NN2
      K2=K1+(I-1)*NN2
8801  ALF(K2)=ALF(K2)/RT
      DO 3900 I4=1,NS
3900  CARLA(I4)=COMAX(I4)/DXT
      IF(NS-3)8651,8651,8652
8651  IF(NG-5)8653,8653,8652
8653  ISO=1
      KOK=1
      DO 835 I4=1,NS
      835  II(I4)=1
836  IF(KOK-1)830,840,830
840  WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),ISA=1,12)
      GO TO (901,901,902,903,904),NG
901  GO TO (951,952,953),NS
951  WRITE OUTPUT TAPE 6,5022
      GO TO 954
952  WRITE OUTPUT TAPE 6,5023
      GO TO 954
953  WRITE OUTPUT TAPE 6,5024
954  GO TO 830
902  GO TO (955,956,957),NS
955  WRITE OUTPUT TAPE 6,5027
      GO TO 958
956  WRITE OUTPUT TAPE 6,5034
      GO TO 958
957  WRITE OUTPUT TAPE 6,5036
958  GO TO 830
903  GO TO (959,960,961),NS
959  WRITE OUTPUT TAPE 6,5037
      GO TO 962
960  WRITE OUTPUT TAPE 6,5038
      GO TO 962
961  WRITE OUTPUT TAPE 6,5040
962  GO TO 830
904  GO TO (963,964,965),NS

```



```

963 WRITE OUTPUT TAPE 6,5044
GO TO 830
964 WRITE OUTPUT TAPE 6,5045
GO TO 830
965 WRITE OUTPUT TAPE 6,5046
830 DO 828 ISO1=1,NG
ISO2=ISO+(ISO1-1)*NN2
828 ALFA(ISO1)=ALF(ISO2)
IF(KOK-39)831,832,831
832 KOK=0
831 GO TO (841,842,843),NS
841 WRITE OUTPUT TAPE 6,5047,(II(I4),I4=1,NS),(ALFA(ISS),ISS=1,NG)
GO TO 844
842 WRITE OUTPUT TAPE 6,5048,(II(I4),I4=1,NS),(ALFA(ISS),ISS=1,NG)
GO TO 844
843 WRITE OUTPUT TAPE 6,5049,(II(I4),I4=1,NS),(ALFA(ISS),ISS=1,NG)
844 KOK=KOK+1
ISO=ISO+1
K1=1
838 II(K1)=II(K1)+1
IF(II(K1)-N(K1))836,836,837
837 II(K1)=1
K1=K1+1
IF(K1-NS)838,838,839
8652 WRITE OUTPUT TAPE 6,5062,(ALF(ISET),ISET=1,NC1)
839 DO 8070 I7=1,NG
WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),ISA=1,12)
GO TO (850,851,852),NS
850 WRITE OUTPUT TAPE 6,5030,17
GO TO 853
851 WRITE OUTPUT TAPE 6,5050,17
GO TO 853
852 WRITE OUTPUT TAPE 6,5051,17
853 KOK=1
DO 8030 I4=1,NS
NS1=I4+NS
8030 II(NS1)=1
8016 DO 8020 I4=1,NS
NS2=I4+NS
B12=II(NS2)-1
8020 A(I4)=B12*CARLA(I4)
8009 DO 8010 I4=1,NS
8010 II(I4)=1
FI=0.
8111 K71=(I7-1)*NN2+1
RI=1.
DO 8011 I4=1,NS
K71=K71+(II(I4)-1)*NTT2(I4)
ASTV=II(I4)
8011 RI=RI*COSF((3.14159265*ASTV-1.57079632)*A(I4)/COMAX(I4))*SQRTF(2./
1COMAX(I4))
FI=FI+ALF(K71)*RI
K1=1
8013 II(K1)=II(K1)+1
IF(II(K1)-N(K1))8111,8111,8014
8014 II(K1)=1
K1=K1+1
IF(K1-NS)8013,8013,8714
8714 IF(KOK-40)8021,8022,8021
8022 WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),ISA=1,12)
GO TO (854,855,856),NS
854 WRITE OUTPUT TAPE 6,5030,17
GO TO 857

```

```

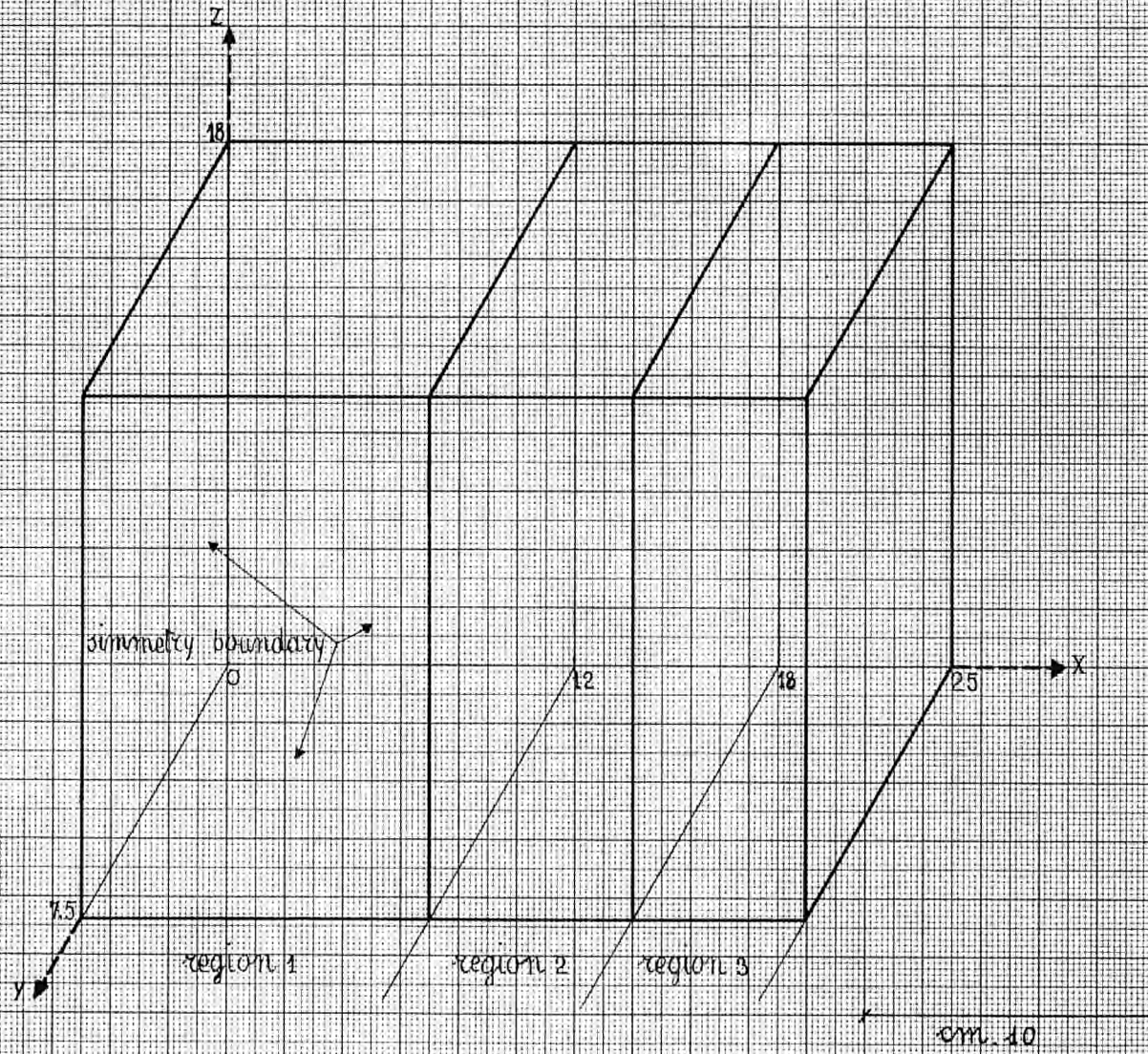
855 WRITE OUTPUT TAPE 6,5050,I7
GO TO 857
856 WRITE OUTPUT TAPE 6,5051,I7
857 KOK=1
8021 WRITE OUTPUT TAPE 6,5054,FI,(A(I4),I4=1,NS)
KOK=KOK+1
K1=1
8018 NS3=K1+NS
II(NS3)=II(NS3)+1
IF(II(NS3)-NTD )8016,8016,8017
8017 II(NS3)=1
K1=K1+1
IF(K1-NS)8018,8018,8070
8070 CONTINUE
DO 4401 I7=1,NG
WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),ISA=1,12)
GO TO (858,859,860),NS
858 WRITE OUTPUT TAPE 6,5053,I7
GO TO 861
859 WRITE OUTPUT TAPE 6,5055,I7
GO TO 861
860 WRITE OUTPUT TAPE 6,5057,I7
861 KOK=1
DO 4401 I71=1,NR
DO 4441 I73=1,NS
4441 II(I73+9)=1
4474 DO 4402 I72=1,NS
I97=2*I72-1+(I71-1)*NS*2+II(I72+9)-1
4402 A(I72)=X(I97)
4409 DO 4410 I4=1,NS
4410 II(I4)=1
FI=C.
4511 K71=(I7-1)*NN2+1
RI=1.
DO 4411 I4=1,NS
K71=K71+(II(I4)-1)*NTT2(I4)
ASTV=II(I4)
4411 RI=RI*COSF((3.14159265*ASTV-1.57079632)*A(I4)/COMAX(I4))*SQRTF(2./
COMAX(I4))
FI=FI+ALF(K71)*RI
K1=1
4413 II(K1)=II(K1)+1
IF(II(K1)-N(K1))4511,4511,4414
4414 II(K1)=1
K1=K1+1
IF(K1-NS)4413,4413,4714
4714 IF(KOK-40)4461,4460,4461
4460 WRITE OUTPUT TAPE 6,5016,(TITLE(ISA),ISA=1,12)
GO TO (862,863,864),NS
862 WRITE OUTPUT TAPE 6,5053,I7
GO TO 865
863 WRITE OUTPUT TAPE 6,5055,I7
GO TO 865
864 WRITE OUTPUT TAPE 6,5057,I7
865 KOK=1
4461 WRITE OUTPUT TAPE 6,5056,I71,FI,(A(I4),I4=1,NS)
KOK=KOK+1
K1=1
4422 II(K1)=II(K1)+1
IF(II(K1)-2)4474,4474,4421
4421 II(K1)=1
K1=K1+1
IF(K1-9-NS)4422,4422,4401

```

```
4401 CONTINUE
1111 IF(KOOR-KOR)910,911,911
911 WRITE OUTPUT TAPE 6,5032
CALL EXIT
END
```



Diagram of sample problem







LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

DIMENSION= 3

REGIONS NUMBER= 3      GROUPS NUMBER= 2

GREATEST NUMBER OF ITERATIONS= 99      MESH INTERVALS ON EACH AXIS= 2.0      PRECISION=0.001000

HARMONICS NUMBER ALONG X AXIS 3, Y AXIS 1, Z AXJS 1



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

REGION	X1	X2	Y1	Y2	Z1	Z2
1	0.	12.00	0.	7.50	0.	18.00
2	12.00	19.00	0.	7.50	0.	18.00
3	19.00	25.00	0.	7.50	0.	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

REGION	GROUP	ABS+REM	NU FISS	REM	DIFF
1	1	0.45000000E-02	0.39999999E-02	0.33000000E-02	0.15000000E 01
1	2	0.47000000E-02	0.62999999E-01	0.	0.12000000E 01
2	1	0.59000000E-02	0.39999999E-03	0.51999999E-02	0.16999999E 01
2	2	0.62999999E-02	0.24999999E-01	0.	0.11300000E 01
3	1	0.72200000E-02	0.	0.66999999E-02	0.12000000E 01
3	2	0.79999999E-02	0.	0.	0.87000000E 00

GROUP FISSION SPECTRUM INTEGRAL

1	0.09999999E 01
2	0.

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

ITERATION	EIGENVALUE	
1	0.09999999E-01	0.47962882E-01
2	0.47962882E-01	0.67096490E-01
3	0.67096490E-01	0.71071324E-01
4	0.71071324E-01	0.71760125E-01
5	0.71760125E-01	0.71907489E-01
6	0.71907489E-01	0.71947321E-01

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLWAY CODE

COEFFICIENTS (I,J,K)

I	J	K	GROUP 1	GROUP 2
1	1	1	0.42366374E 01	0.21289021E-00
2	1	1	0.11508830E 01	0.16919478E-01
3	1	1	0.41607964E-02	0.28964250E-02

LOUISE III

SAMPLE PROBLFM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.26250180E-00	0.	0.	0.
0.10609853E-00	12.50	0.	0.
0.54491551E-08	25.00	0.	0.
0.18561680E-00	0.	3.75	0.
0.75015925E-01	12.50	3.75	0.
0.38531346E-08	25.00	3.75	0.
0.78231632E-08	0.	7.50	0.
0.31616847E-08	12.50	7.50	0.
0.16239747E-15	25.00	7.50	0.
0.18561680E-00	0.	0.	9.00
0.75015925E-01	12.50	0.	9.00
0.38531346E-08	25.00	0.	9.00
0.13125090E-00	0.	3.75	9.00
0.53044270E-01	12.50	3.75	9.00
0.27245776E-08	25.00	3.75	9.00
0.55318118E-08	0.	7.50	9.00
0.22356487E-08	12.50	7.50	9.00
0.11483236E-15	25.00	7.50	9.00
0.78231632E-08	0.	0.	18.00
0.31616847E-08	12.50	0.	18.00
0.16239747E-15	25.00	0.	18.00
0.55318118E-08	0.	3.75	18.00
0.22356487E-08	12.50	3.75	18.00
0.11483236E-15	25.00	3.75	18.00
0.23314843E-15	0.	7.50	18.00
0.94225547E-16	12.50	7.50	18.00
0.48398220E-23	25.00	7.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.11329633E-01	0.	0.	0.
0.66468759E-02	12.50	0.	0.
0.54647067E-09	25.00	0.	0.
0.80112609E-02	0.	3.75	0.
0.47000512E-02	12.50	3.75	0.
0.38641313E-09	25.00	3.75	0.
0.33764939E-09	0.	7.50	0.
0.19809233E-09	12.50	7.50	0.
0.16286094E-16	25.00	7.50	0.
0.80112609E-02	0.	0.	9.00
0.47000511E-02	12.50	0.	9.00
0.38641313E-09	25.00	0.	9.00
0.56648169E-02	0.	3.75	9.00
0.33234381E-02	12.50	3.75	9.00
0.27323535E-09	25.00	3.75	9.00
0.23875418E-09	0.	7.50	9.00
0.14007244E-09	12.50	7.50	9.00
0.11516009E-16	25.00	7.50	9.00
0.33764939E-09	0.	0.	18.00
0.19809233E-09	12.50	0.	18.00
0.16286094E-16	25.00	0.	18.00
0.23875418E-09	0.	3.75	18.00
0.14007244E-09	12.50	3.75	18.00
0.11516009E-16	25.00	3.75	18.00
0.10062736E-16	0.	7.50	18.00
0.59036117E-17	12.50	7.50	18.00
0.48536345E-24	25.00	7.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

REGION	FLUX	X	Y	Z
1	0.26250180E-00	0.	0.	0.
1	0.11448176E-00	12.00	0.	0.
1	0.78231632E-08	0.	7.50	0.
1	0.34118224E-08	12.00	7.50	0.
1	0.78231632E-08	0.	0.	18.00
1	0.34118224E-08	12.00	0.	18.00
1	0.23314843E-15	0.	7.50	18.00
1	0.10168023E-15	12.00	7.50	18.00
2	0.11448176E-00	12.00	0.	0.
2	0.25424908E-01	19.00	0.	0.
2	0.34118224E-08	12.00	7.50	0.
2	0.75772130E-09	19.00	7.50	0.
2	0.34118224E-08	12.00	0.	18.00
2	0.75772130E-09	19.00	0.	18.00
2	0.10168023E-15	12.00	7.50	18.00
2	0.22581854E-16	19.00	7.50	18.00
3	0.25424908E-01	19.00	0.	0.
3	0.54491551E-08	25.00	0.	0.
3	0.75772130E-09	19.00	7.50	0.
3	0.16239747E-15	25.00	7.50	0.
3	0.75772130E-09	19.00	0.	18.00
3	0.16239747E-15	25.00	0.	18.00
3	0.22581854E-16	19.00	7.50	18.00
3	0.48398220E-23	25.00	7.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLWAY CODE

GROUP 2

REGION	FLUX	X	Y	Z
1	0.11329633E-01	0.	0.	0.
1	0.69165014E-02	12.00	0.	0.
1	0.33764939E-09	0.	7.50	0.
1	0.20612780E-09	12.00	7.50	0.
1	0.33764939E-09	0.	0.	18.00
1	0.20612780E-09	12.00	0.	18.00
1	0.10062736E-16	0.	7.50	18.00
1	0.61430872E-17	12.00	7.50	18.00
2	0.69165014E-02	12.00	0.	0.
2	0.32043268E-02	19.00	0.	0.
2	0.20612780E-09	12.00	7.50	0.
2	0.95496380E-10	19.00	7.50	0.
2	0.20612780E-09	12.00	0.	18.00
2	0.95496380E-10	19.00	0.	18.00
2	0.61430872E-17	12.00	7.50	18.00
2	0.28460139E-17	19.00	7.50	18.00
3	0.32043268E-02	19.00	0.	0.
3	0.54647067E-09	25.00	0.	0.
3	0.95496380E-10	19.00	7.50	0.
3	0.16286094E-16	25.00	7.50	0.
3	0.95496380E-10	19.00	0.	18.00
3	0.16286094E-16	25.00	0.	18.00
3	0.28460139E-17	19.00	7.50	18.00
3	0.48536345E-24	25.00	7.50	18.00

END



*Appendix 2*

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLWAY CODE

DIMENSION= 3

REGIONS NUMBER= 3      GROUPS NUMBER= 2

GREATEST NUMBER OF ITERATIONS= 99      MESH INTERVALS ON EACH AXIS= 2.0      PRECISION=0.001000

HARMONICS NUMBER ALONG X AXIS 3, Y AXIS 3, Z AXIS 3

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

REGION	X1	X2	Y1	Y2	Z1	Z2
1	0.	12.00	0.	7.50	0.	18.00
2	12.00	19.00	0.	7.50	0.	18.00
3	19.00	25.00	0.	7.50	0.	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

REGION	GROUP	ABS+REM	NU FISS	REM	DIFF
1	1	0.45000000E-02	0.39999999E-02	0.33000000E-02	0.15000000E 01
1	2	0.47000000E-02	0.62999999E-01	0.	0.12000000E 01
2	1	0.59000000E-02	0.39999999E-03	0.51999999E-02	0.16999999E 01
2	2	0.62999999E-02	0.24999999E-01	0.	0.11300000E 01
3	1	0.72200000E-02	0.	0.66999999E-02	0.12000000E 01
3	2	0.79999999E-02	0.	0.	0.87000000E 00

GROUP FISSON SPECTRUM INTEGRAL

1	0.09999999E 01
2	0.

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

ITERATION	EIGENVALUE	
1	0.09999999E-01	0.11459494E-01
2	0.11459494E-01	0.57409958E-01
3	0.57409958E-01	0.69755869E-01
4	0.69755869E-01	0.71562810E-01
5	0.71562810E-01	0.71877059E-01
6	0.71877059E-01	0.71942590E-01

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

COEFFICIENTS (I,J,K)

I	J	K	GROUP 1	GROUP 2
1	1	1	0.42421228E 01	0.21316583E-00
2	1	1	0.11523731E 01	0.16941381E-01
3	1	1	0.41661806E-02	0.29001752E-02
1	2	1	0.57577930E-05	0.36428189E-07
2	2	1	0.33984034E-05	0.20420948E-07
3	2	1	0.98082121E-06	0.50740825E-08
1	3	1	0.49339558E-07	0.19245946E-08
2	3	1	0.17974079E-07	0.16898182E-09
3	3	1	0.31459246E-08	0.33298337E-10
1	1	2	0.20958883E-01	0.50305563E-03
2	1	2	0.84774803E-02	0.12604160E-03
3	1	2	0.71713505E-03	0.80617459E-05
1	2	2	0.24186406E-05	0.14267652E-07
2	2	2	0.14545037E-05	0.77674539E-08
3	2	2	0.44734289E-06	0.21267512E-08
1	3	2	0.85578616E-08	0.24159276E-10
2	3	2	0.56674675E-08	0.13708720E-10
3	3	2	0.22801293E-08	0.53126077E-11
1	1	3	0.17650108E-03	0.20556370E-05
2	1	3	0.91737664E-04	0.86722222E-06
3	1	3	0.18388316E-04	0.12882354E-06
1	2	3	0.56980199E-06	0.26640544E-08
2	2	3	0.35479366E-06	0.15326209E-08
3	2	3	0.12032091E-06	0.48337059E-09
1	3	3	0.45711372E-08	0.97479994E-11
2	3	3	0.30747662E-08	0.62925862E-11
3	3	3	0.12724575E-08	0.26899060E-11

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.26432442E-00	0.	0.	0.
0.10663324E-00	12.50	0.	0.
0.54738690E-08	25.00	0.	0.
0.18690451E-00	0.	3.75	0.
0.75400991E-01	12.50	3.75	0.
0.38705952E-08	25.00	3.75	0.
0.78773667E-08	0.	7.50	0.
0.31779081E-08	12.50	7.50	0.
0.16313247E-15	25.00	7.50	0.
0.18480932E-00	0.	0.	9.00
0.74825067E-01	12.50	0.	9.00
0.38456454E-08	25.00	0.	9.00
0.13067969E-00	0.	3.75	9.00
0.52909287E-01	12.50	3.75	9.00
0.27192794E-08	25.00	3.75	9.00
0.55077223E-08	0.	7.50	9.00
0.22299580E-08	12.50	7.50	9.00
0.11460887E-15	25.00	7.50	9.00
0.76557779E-08	0.	0.	18.00
0.31164744E-08	12.50	0.	18.00
0.16048947E-15	25.00	0.	18.00
0.54134529E-08	0.	3.75	18.00
0.22036801E-08	12.50	3.75	18.00
0.11348319E-15	25.00	3.75	18.00
0.22816002E-15	0.	7.50	18.00
0.92878192E-16	12.50	7.50	18.00
0.47829600E-23	25.00	7.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.11375475E-01	0.	0.	0.
0.66682196E-02	12.50	0.	0.
0.54796908E-09	25.00	0.	0.
0.80436680E-02	0.	3.75	0.
0.47151426E-02	12.50	3.75	0.
0.38747258E-09	25.00	3.75	0.
0.33901492E-09	0.	7.50	0.
0.19872836E-09	12.50	7.50	0.
0.16330743E-16	25.00	7.50	0.
0.79995921E-02	0.	0.	9.00
0.46971285E-02	12.50	0.	9.00
0.38635415E-09	25.00	0.	9.00
0.56565649E-02	0.	3.75	9.00
0.33213715E-02	12.50	3.75	9.00
0.27319362E-09	25.00	3.75	9.00
0.23840626E-09	0.	7.50	9.00
0.13998532E-09	12.50	7.50	9.00
0.11514249E-16	25.00	7.50	9.00
0.33430450E-09	0.	0.	18.00
0.19679505E-09	12.50	0.	18.00
0.16210657E-16	25.00	0.	18.00
0.23638896E-09	0.	3.75	18.00
0.13915511E-09	12.50	3.75	18.00
0.11462665E-16	25.00	3.75	18.00
0.99630520E-17	0.	7.50	18.00
0.58649503E-17	12.50	7.50	18.00
0.48311527E-24	25.00	7.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLWAY CODE

GROUP 1

REGION	FLUX	X	Y	Z
1	0.26432442E-00	0.	0.	0.
1	0.11508527E-00	12.00	0.	0.
1	0.78773667E-08	0.	7.50	0.
1	0.34297953E-08	12.00	7.50	0.
1	0.76557779E-08	0.	0.	18.00
1	0.33611817E-08	12.00	0.	18.00
1	0.22816002E-15	0.	7.50	18.00
1	0.10017104E-15	12.00	7.50	18.00
2	0.11508527E-00	12.00	0.	0.
2	0.25493186E-01	19.00	0.	0.
2	0.34297953E-08	12.00	7.50	0.
2	0.75975636E-09	19.00	7.50	0.
2	0.33611817E-08	12.00	0.	18.00
2	0.75434627E-09	19.00	0.	18.00
2	0.10017104E-15	12.00	7.50	18.00
2	0.22481271E-16	19.00	7.50	18.00
3	0.25493186E-01	19.00	0.	0.
3	0.54738690E-08	25.00	0.	0.
3	0.75975636E-09	19.00	7.50	0.
3	0.16313247E-15	25.00	7.50	0.
3	0.75434627E-09	19.00	0.	18.00
3	0.16048947E-15	25.00	0.	18.00
3	0.22481271E-16	19.00	7.50	18.00
3	0.47829600E-23	25.00	7.50	18.00



LOUISE III

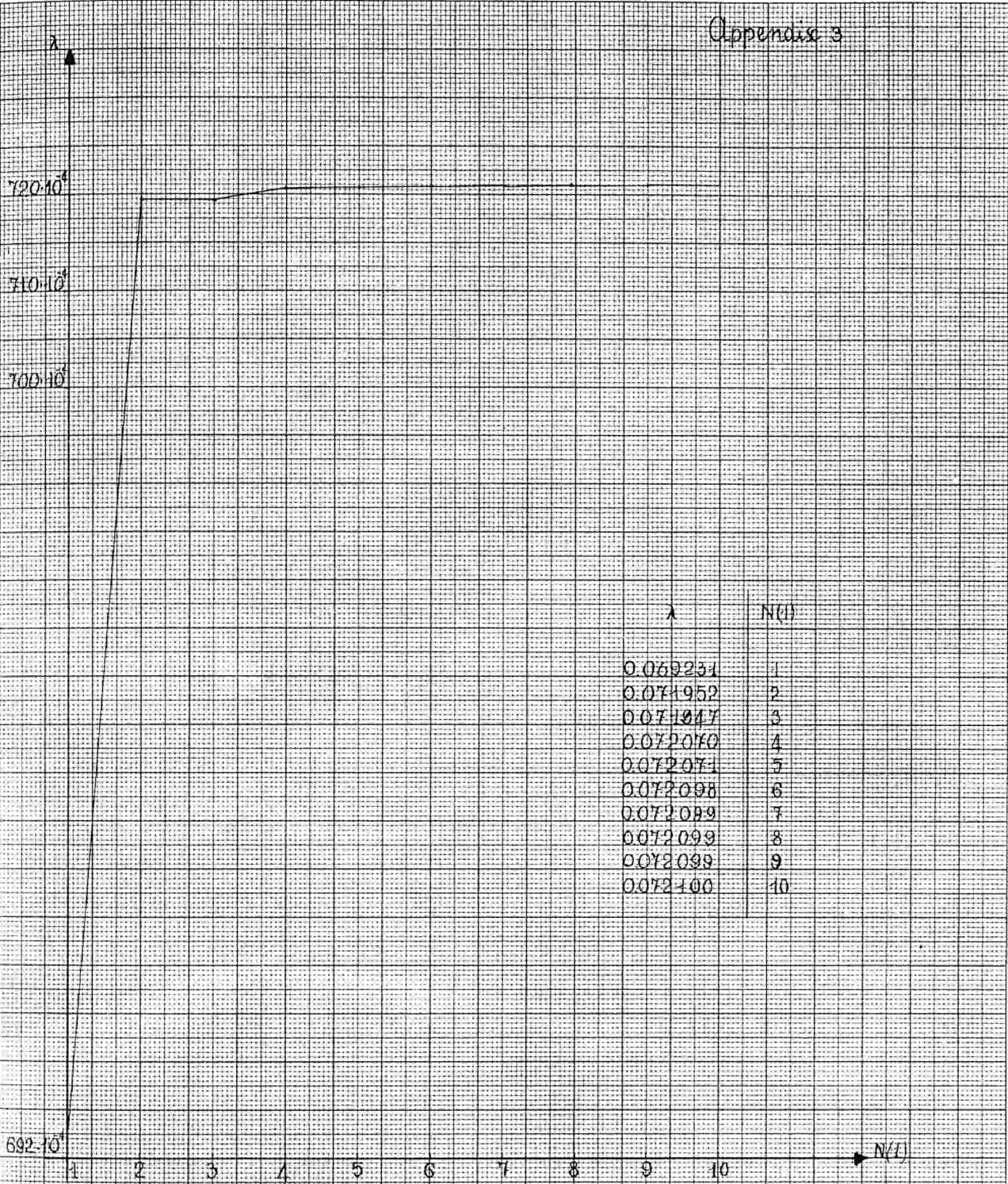
SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

REGION	FLUX	X	Y	Z
1	0.11375475E-01	0.	0.	0.
1	0.69391219E-02	12.00	0.	0.
1	0.33901492E-09	0.	7.50	0.
1	0.20680185E-09	12.00	7.50	0.
1	0.33430450E-09	0.	0.	18.00
1	0.20472839E-09	12.00	0.	18.00
1	0.99630520E-17	0.	7.50	18.00
1	0.61013824E-17	12.00	7.50	18.00
2	0.69391219E-02	12.00	0.	0.
2	0.32123167E-02	19.00	0.	0.
2	0.20680185E-09	12.00	7.50	0.
2	0.95734504E-10	19.00	7.50	0.
2	0.20472839E-09	12.00	0.	18.00
2	0.95149303E-10	19.00	0.	18.00
2	0.61013824E-17	12.00	7.50	18.00
2	0.28356705E-17	19.00	7.50	18.00
3	0.32123167E-02	19.00	0.	0.
3	0.54796908E-09	25.00	0.	0.
3	0.95734504E-10	19.00	7.50	0.
3	0.16330743E-16	25.00	7.50	0.
3	0.95149303E-10	19.00	0.	18.00
3	0.16210657E-16	25.00	0.	18.00
3	0.26356705E-17	19.00	7.50	18.00
3	0.48311527E-24	25.00	7.50	18.00

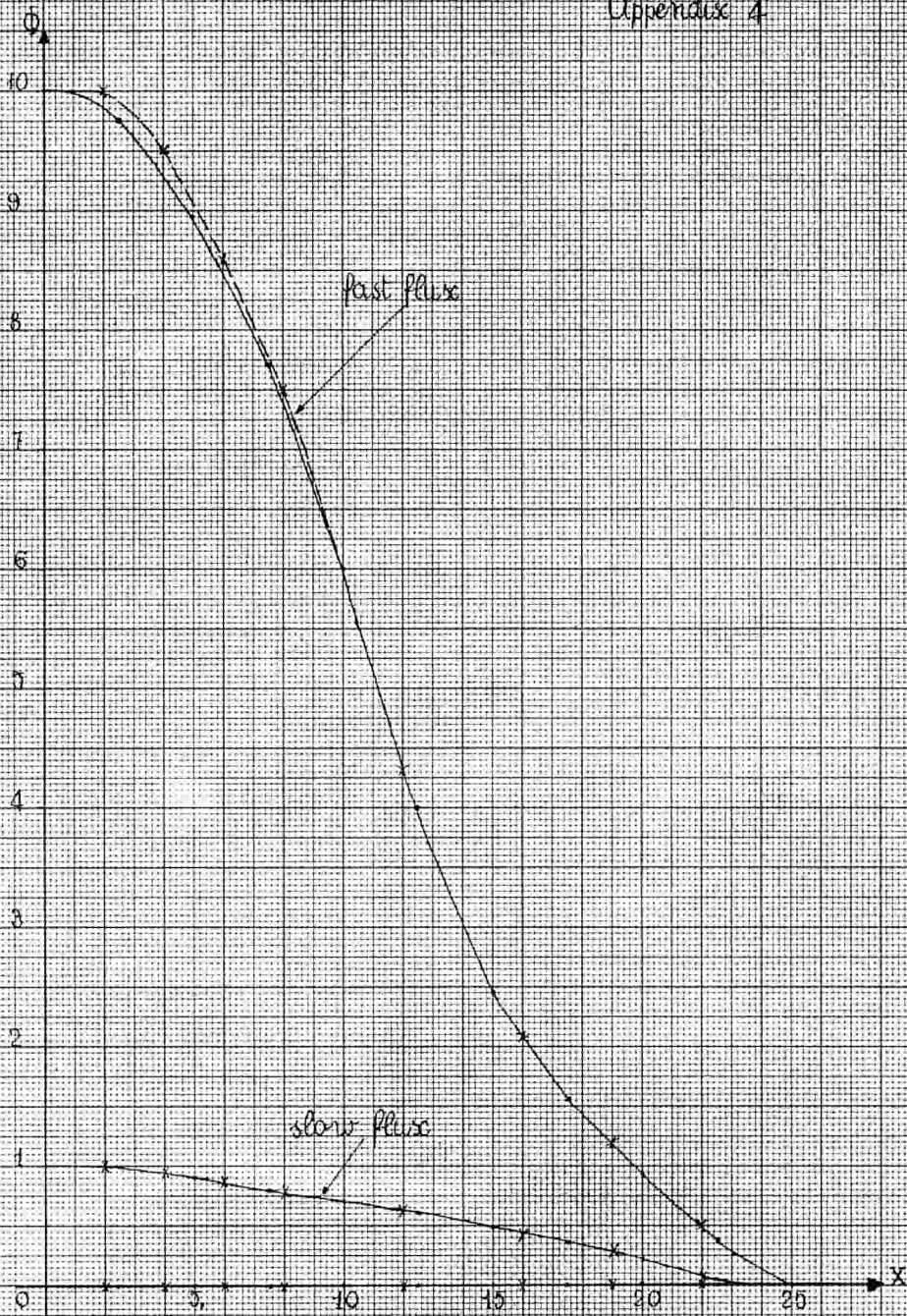


Appendix 3



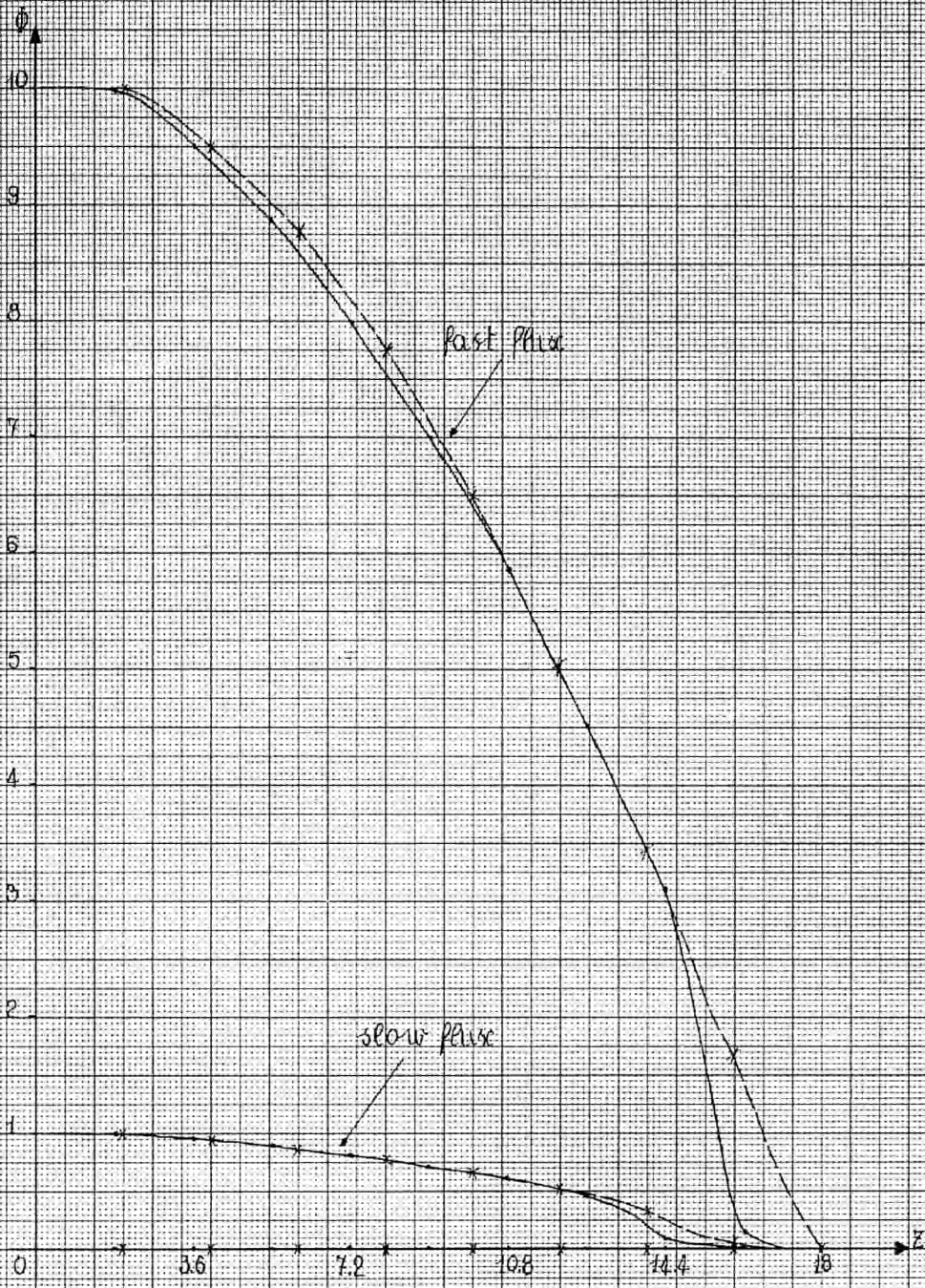
$N(i)$  = Harmonic number along x axis

Appendix 4



Louise 11 flux along line ( $y=6.$ ,  $z=7.2$ )

Whirlaway flux along line ( $y=6.$ ,  $z=8.$ )



Louise III flux along line ( $x=7.5, y=6.$ )

Whirlaway flux along line ( $x=3., y=6.$ )

\* XEQ

ENTRY POINTS TO SUBROUTINES REQUESTED FROM LIBRARY,  
 (FPT) (STHM) (FIL) (TSHM) (RTN) (RWT) SIN (STB) (WLR) (TSB)  
 (RLR) SQRT COS EXIT

LOGICAL TAPE	MACHINE TAPE	TOTAL WRITES	TOTAL READS	NOISE WRITING	RECORDS READING	TOTAL REDUNDANCIES WRITING	REUNDANCIES READING	POSITIONING ERRORS
1	A 1	0	360	0	0	0	0	0
5	A 2	0	229	0	0	0	0	0
6	A 3	11	0	0	0	0	0	0
7	B 4	5	2	0	0	0	0	0

EXECUTION

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

DIMENSION= 3

REGIONS NUMBER= 3      GROUPS NUMBER= 2

GREATEST NUMBER OF ITERATIONS= 99      MESH INTERVALS ON EACH AXIS=10.0      PRECISION=0.001000

HARMONICS NUMBER ALONG X AXIS 10, Y AXIS 1, Z AXIS 1

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

REGION	X1	X2	Y1	Y2	Z1	Z2
1	0.	12.00	0.	7.50	0.	18.00
2	12.00	19.00	0.	7.50	0.	18.00
3	19.00	25.00	0.	7.50	0.	18.00



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

REGION	GROUP	ABS+REM	NU FISS	REM	DIFF
1	1	0.45000000E-02	0.59999999E-02	0.33000000E-02	0.15000000E 01
1	2	0.47000000E-02	0.62999999E-01	0.	0.12000000E 01
2	1	0.59000000E-02	0.39999999E-03	0.51999999E-02	0.16999999E 01
2	2	0.62999999E-02	0.24999999E-01	0.	0.11300000E 01
3	1	0.72200000E-02	0.	0.66999999E-02	0.12000000E 01
3	2	0.79999999E-02	0.	0.	0.87000000E 00

GROUP	FISSION SPECTRUM INTEGRAL
1	0.09999999E 01
2	0.

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

ITERATION	EIGENVALUE	
1	0.099999999E-01	0.18221962E-01
2	0.18221962E-01	0.64417998E-01
3	0.64417998E-01	0.71061739E-01
4	0.71061739E-01	0.71922183E-01
5	0.71922183E-01	0.72068217E-01
6	0.72068217E-01	0.72100910E-01

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

COEFFICIENTS (I,J,K)

I	J	K	GROUP 1	GROUP 2
1	1	1	0.42316091E 01	0.21252359E-00
2	1	1	0.11321404E-01	0.16072140E-01
3	1	1	-0.62971999E-02	0.34182952E-02
4	1	1	-0.10777173E-00	0.23599801E-04
5	1	1	-0.62758140E-02	0.10966449E-03
6	1	1	0.39172475E-01	-0.37169418E-03
7	1	1	-0.19920436E-02	-0.39073390E-03
8	1	1	-0.11404040E-01	0.60997831E-03
9	1	1	-0.23659644E-02	-0.80881470E-04
10	1	1	0.44533300E-02	-0.22645015E-03

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CCDE

GROUP 1

FLUX	X	Y	Z
0.25663932E-00	0.	0.	0.
0.24997780E-00	2.50	0.	0.
0.23009362E-00	5.00	0.	0.
0.19792981E-00	7.50	0.	0.
0.15366226E-00	10.00	0.	0.
0.10108709E-00	12.50	0.	0.
0.62887703E-01	15.00	0.	0.
0.40220271E-01	17.50	0.	0.
0.23188078E-01	20.00	0.	0.
0.96978775E-02	22.50	0.	0.
0.60511809E-08	25.00	0.	0.
0.25347966E-00	0.	0.75	0.
0.24690016E-00	2.50	0.75	0.
0.22726079E-00	5.00	0.75	0.
0.19549296E-00	7.50	0.75	0.
0.15177043E-00	10.00	0.75	0.
0.99842537E-01	12.50	0.75	0.
0.62113453E-01	15.00	0.75	0.
0.39725092E-01	17.50	0.75	0.
0.22902594E-01	20.00	0.75	0.
0.95784805E-02	22.50	0.75	0.
0.59766808E-08	25.00	0.75	0.
0.24407850E-00	0.	1.50	0.
0.23774301E-00	2.50	1.50	0.
0.21883204E-00	5.00	1.50	0.
0.18824244E-00	7.50	1.50	0.
0.14614150E-00	10.00	1.50	0.
0.96139532E-01	12.50	1.50	0.
0.59809762E-01	15.00	1.50	0.
0.38251751E-01	17.50	1.50	0.
0.22053172E-01	20.00	1.50	0.
0.92232298E-02	22.50	1.50	0.
0.57550150E-08	25.00	1.50	0.
0.22866731E-00	0.	2.25	0.
0.22273185E-00	2.50	2.25	0.
0.20501492E-00	5.00	2.25	0.
0.17635675E-00	7.50	2.25	0.
0.13691408E-00	10.00	2.25	0.
0.90069257E-01	12.50	2.25	0.

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.56033355E-01	15.00	2.25	0.
0.35836523E-01	17.50	2.25	0.
0.20660728E-01	20.00	2.25	0.
0.86408722E-02	22.50	2.25	0.
0.53916416E-08	25.00	2.25	0.
0.20762558E-00	0.	3.00	0.
0.20223629E-00	2.50	3.00	0.
0.18614966E-00	5.00	3.00	0.
0.16012858E-00	7.50	3.00	0.
0.12431538E-00	10.00	3.00	0.
0.81781172E-01	12.50	3.00	0.
0.50877222E-01	15.00	3.00	0.
0.32538883E-01	17.50	3.00	0.
0.18759549E-01	20.00	3.00	0.
0.78457479E-02	22.50	3.00	0.
0.48955082E-08	25.00	3.00	0.
0.18147141E-00	0.	3.75	0.
0.17676099E-00	2.50	3.75	0.
0.16270076E-00	5.00	3.75	0.
0.13995751E-00	7.50	3.75	0.
0.10865563E-00	10.00	3.75	0.
0.71479365E-01	12.50	3.75	0.
0.44468323E-01	15.00	3.75	0.
0.28440026E-01	17.50	3.75	0.
0.16396447E-01	20.00	3.75	0.
0.68574349E-02	22.50	3.75	0.
0.42788310E-08	25.00	3.75	0.
0.15084881E-00	0.	4.50	0.
0.14693327E-00	2.50	4.50	0.
0.13524564E-00	5.00	4.50	0.
0.11634022E-00	7.50	4.50	0.
0.90320417E-01	10.00	4.50	0.
0.59417501E-01	12.50	4.50	0.
0.36964463E-01	15.00	4.50	0.
0.23640882E-01	17.50	4.50	0.
0.13629610E-01	20.00	4.50	0.
0.57002694E-02	22.50	4.50	0.
0.35567950E-08	25.00	4.50	0.
0.11651182E-00	0.	5.25	0.

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.11348755E-00	2.50	5.25	0.
0.10446032E-00	5.00	5.25	0.
0.89858260E-01	7.50	5.25	0.
0.69761215E-01	10.00	5.25	0.
0.45892580E-01	12.50	5.25	0.
0.28550423E-01	15.00	5.25	0.
0.18259622E-01	17.50	5.25	0.
0.10527167E-01	20.00	5.25	0.
0.44027448E-02	22.50	5.25	0.
0.27471789E-08	25.00	5.25	0.
0.79305921E-01	0.	6.00	0.
0.77247394E-01	2.50	6.00	0.
0.71102847E-01	5.00	6.00	0.
0.61163682E-01	7.50	6.00	0.
0.47484257E-01	10.00	6.00	0.
0.31237631E-01	12.50	6.00	0.
0.19433371E-01	15.00	6.00	0.
0.12428749E-01	17.50	6.00	0.
0.71655110E-02	20.00	6.00	0.
0.29968093E-02	22.50	6.00	0.
0.18699180E-08	25.00	6.00	0.
0.40147243E-01	0.	6.75	0.
0.39105152E-01	2.50	6.75	0.
0.35994580E-01	5.00	6.75	0.
0.30963051E-01	7.50	6.75	0.
0.24038079E-01	10.00	6.75	0.
0.15813507E-01	12.50	6.75	0.
0.98378067E-02	15.00	6.75	0.
0.62918381E-02	17.50	6.75	0.
0.36274155E-02	20.00	6.75	0.
0.15170826E-02	22.50	6.75	0.
0.94661345E-09	25.00	6.75	0.
0.76484476E-08	0.	7.50	0.
0.74499188E-08	2.50	7.50	0.
0.68573244E-08	5.00	7.50	0.
0.58987680E-08	7.50	7.50	0.
0.45794924E-08	10.00	7.50	0.
0.30126299E-08	12.50	7.50	0.
0.18741996E-08	15.00	7.50	0.

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.11986575E-08	17.50	7.50	0.
0.69105858E-09	20.00	7.50	0.
0.28901927E-09	22.50	7.50	0.
0.18033924E-15	25.00	7.50	0.
0.25347966E-00	0.	0.	1.80
0.24690016E-00	2.50	0.	1.80
0.22726079E-00	5.00	0.	1.80
0.19549296E-00	7.50	0.	1.80
0.15177043E-00	10.00	0.	1.80
0.99842537E-01	12.50	0.	1.80
0.62113453E-01	15.00	0.	1.80
0.39725093E-01	17.50	0.	1.80
0.22902594E-01	20.00	0.	1.80
0.95784808E-02	22.50	0.	1.80
0.59766807E-08	25.00	0.	1.80
0.25035890E-00	0.	0.75	1.80
0.24386041E-00	2.50	0.75	1.80
0.22446283E-00	5.00	0.75	1.80
0.19308612E-00	7.50	0.75	1.80
0.14990188E-00	10.00	0.75	1.80
0.98613308E-01	12.50	0.75	1.80
0.61348733E-01	15.00	0.75	1.80
0.39236010E-01	17.50	0.75	1.80
0.22620625E-01	20.00	0.75	1.80
0.94605532E-02	22.50	0.75	1.80
0.59030979E-08	25.00	0.75	1.80
0.24107349E-00	0.	1.50	1.80
0.23481600E-00	2.50	1.50	1.80
0.21613785E-00	5.00	1.50	1.80
0.18592486E-00	7.50	1.50	1.80
0.14434226E-00	10.00	1.50	1.80
0.94955894E-01	12.50	1.50	1.80
0.59073404E-01	15.00	1.50	1.80
0.37780807E-01	17.50	1.50	1.80
0.21781661E-01	20.00	1.50	1.80
0.91096768E-02	22.50	1.50	1.80
0.56841612E-08	25.00	1.50	1.80
0.22585203E-00	0.	2.25	1.80
0.21998965E-00	2.50	2.25	1.80

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLWAY CODE

GROUP 1

FLUX	X	Y	Z
0.20249084E-00	5.00	2.25	1.80
0.17418551E-00	7.50	2.25	1.80
0.13522844E-00	10.00	2.25	1.80
0.88960353E-01	12.50	2.25	1.80
0.55343492E-01	15.00	2.25	1.80
0.35395317E-01	17.50	2.25	1.80
0.20406361E-01	20.00	2.25	1.80
0.85344888E-02	22.50	2.25	1.80
0.53252617E-02	25.00	2.25	1.80
0.20506936E-00	0.	3.00	1.80
0.19974642E-00	2.50	3.00	1.80
0.18385784E-00	5.00	3.00	1.80
0.15815713E-00	7.50	3.00	1.80
0.12278485E-00	10.00	3.00	1.80
0.80774309E-01	12.50	3.00	1.80
0.50250839E-01	15.00	3.00	1.80
0.32138276E-01	17.50	3.00	1.80
0.18528588E-01	20.00	3.00	1.80
0.77491537E-02	22.50	3.00	1.80
0.48352363E-02	25.00	3.00	1.80
0.17923719E-00	0.	3.75	1.80
0.17458478E-00	2.50	3.75	1.80
0.16069764E-00	5.00	3.75	1.80
0.13823440E-00	7.50	3.75	1.80
0.10731790E-00	10.00	3.75	1.80
0.70599334E-01	12.50	3.75	1.80
0.43920845E-01	15.00	3.75	1.80
0.28089882E-01	17.50	3.75	1.80
0.16194579E-01	20.00	3.75	1.80
0.67730083E-02	22.50	3.75	1.80
0.42261515E-02	25.00	3.75	1.80
0.14899161E-00	0.	4.50	1.80
0.14512427E-00	2.50	4.50	1.80
0.13358054E-00	5.00	4.50	1.80
0.11490788E-00	7.50	4.50	1.80
0.89208422E-01	10.00	4.50	1.80
0.58685973E-01	12.50	4.50	1.80
0.36509369E-01	15.00	4.50	1.80
0.23349824E-01	17.50	4.50	1.80



-LOUISE 1.1

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.13461807E-01	20.00	4.50	1.80
0.56300897E-02	22.50	4.50	1.80
0.35130049E-08	25.00	4.50	1.80
0.11507737E-00	0.	5.25	1.80
0.11209033E-00	2.50	5.25	1.80
0.10317424E-00	5.00	5.25	1.80
0.88751955E-01	7.50	5.25	1.80
0.68902340E-01	10.00	5.25	1.80
0.45327566E-01	12.50	5.25	1.80
0.28198919E-01	15.00	5.25	1.80
0.18033481E-01	17.50	5.25	1.80
0.10397561E-01	20.00	5.25	1.80
0.43485396E-02	22.50	5.25	1.80
0.27133566E-08	25.00	5.25	1.80
0.78329533E-01	0.	6.00	1.80
0.76296352E-01	2.50	6.00	1.80
0.70227453E-01	5.00	6.00	1.80
0.60410656E-01	7.50	6.00	1.80
0.46899647E-01	10.00	6.00	1.80
0.30853044E-01	12.50	6.00	1.80
0.19194114E-01	15.00	6.00	1.80
0.12275730E-01	17.50	6.00	1.80
0.70772918E-02	20.00	6.00	1.80
0.29599137E-02	22.50	6.00	1.80
0.18468961E-08	25.00	6.00	1.80
0.39652964E-01	0.	6.75	1.80
0.38623701E-01	2.50	6.75	1.80
0.35551427E-01	5.00	6.75	1.80
0.30581845E-01	7.50	6.75	1.80
0.23742130E-01	10.00	6.75	1.80
0.15618816E-01	12.50	6.75	1.80
0.97166869E-02	15.00	6.75	1.80
0.62143750E-02	17.50	6.75	1.80
0.35827559E-01	20.00	6.75	1.80
0.14984048E-02	22.50	6.75	1.80
0.93495908E-09	25.00	6.75	1.80
0.75542825E-08	0.	7.50	1.80
0.73581981E-08	2.50	7.50	1.80
0.67728993E-08	5.00	7.50	1.80

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.58261443E-08	7.50	7.50	1.80
0.45231112E-08	10.00	7.50	1.80
0.29755394E-08	12.50	7.50	1.80
0.18511251E-08	15.00	7.50	1.80
0.11839000E-08	17.50	7.50	1.80
0.68255048E-09	20.00	7.50	1.80
0.28546097E-09	22.50	7.50	1.80
0.17811897E-15	25.00	7.50	1.80
0.24407850E-00	0.	0.	3.60
0.23774301E-00	2.50	0.	3.60
0.21883204E-00	5.00	0.	3.60
0.18824243E-00	7.50	0.	3.60
0.14614150E-00	10.00	0.	3.60
0.96139532E-01	12.50	0.	3.60
0.59809762E-01	15.00	0.	3.60
0.38251751E-01	17.50	0.	3.60
0.22053173E-01	20.00	0.	3.60
0.92232298E-02	22.50	0.	3.60
0.57550152E-08	25.00	0.	3.60
0.24107349E-00	0.	0.75	3.60
0.23481600E-00	2.50	0.75	3.60
0.21613785E-00	5.00	0.75	3.60
0.18592486E-00	7.50	0.75	3.60
0.14434226E-00	10.00	0.75	3.60
0.94955895E-01	12.50	0.75	3.60
0.59073406E-01	15.00	0.75	3.60
0.37780807E-01	17.50	0.75	3.60
0.21781661E-01	20.00	0.75	3.60
0.91096763E-02	22.50	0.75	3.60
0.56841614E-08	25.00	0.75	3.60
0.23213245E-00	0.	1.50	3.60
0.22610705E-00	2.50	1.50	3.60
0.20812164E-00	5.00	1.50	3.60
0.17902920E-00	7.50	1.50	3.60
0.13898882E-00	10.00	1.50	3.60
0.91434129E-01	12.50	1.50	3.60
0.56882463E-01	15.00	1.50	3.60
0.36379576E-01	17.50	1.50	3.60
0.20973814E-01	20.00	1.50	3.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.67718130E-02	22.50	1.50	3.60
0.54733443E-08	25.00	1.50	3.60
0.21747553E-00	0.	2.25	3.60
0.21183058E-00	2.50	2.25	3.60
0.19498078E-00	5.00	2.25	3.60
0.16772524E-00	7.50	2.25	3.60
0.13021303E-00	10.00	2.25	3.60
0.65566095E-01	12.50	2.25	3.60
0.53290887E-01	15.00	2.25	3.60
0.34082559E-01	17.50	2.25	3.60
0.19649521E-01	20.00	2.25	3.60
0.82179578E-02	22.50	2.25	3.60
0.51277559E-00	25.00	2.25	3.60
0.19746365E-00	0.	3.00	3.60
0.19233814E-00	2.50	3.00	3.60
0.17703884E-00	5.00	3.00	3.60
0.15229133E-00	7.50	3.00	3.60
0.11823095E-00	10.00	3.00	3.60
0.77778516E-01	12.50	3.00	3.60
0.48387113E-01	15.00	3.00	3.60
0.30946317E-01	17.50	3.00	3.60
0.17841391E-01	20.00	3.00	3.60
0.74617495E-02	22.50	3.00	3.60
0.46559050E-00	25.00	3.00	3.60
0.17258956E-00	0.	3.75	3.60
0.16810969E-00	2.50	3.75	3.60
0.15473761E-00	5.00	3.75	3.60
0.13310750E-00	7.50	3.75	3.60
0.10333765E-00	10.00	3.75	3.60
0.67980916E-01	12.50	3.75	3.60
0.42291888E-01	15.00	3.75	3.60
0.27048002E-01	17.50	3.75	3.60
0.15593948E-01	20.00	3.75	3.60
0.65218082E-02	22.50	3.75	3.60
0.40694102E-00	25.00	3.75	3.60
0.14346574E-00	0.	4.50	3.60
0.13974184E-00	2.50	4.50	3.60
0.12862624E-00	5.00	4.50	3.60
0.11064613E-00	7.50	4.50	3.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.85899822E-01	10.00	4.50	3.60
0.56509402E-01	12.50	4.50	3.60
0.35155295E-01	15.00	4.50	3.60
0.22483815E-01	17.50	4.50	3.60
0.12962530E-01	20.00	4.50	3.60
0.54212786E-02	22.50	4.50	3.60
0.33827129E-08	25.00	4.50	3.60
0.11080933E-00	0.	5.25	3.60
0.10793307E-00	2.50	5.25	3.60
0.99347675E-01	5.00	5.25	3.60
0.85460284E-01	7.50	5.25	3.60
0.66346858E-01	10.00	5.25	3.60
0.43646438E-01	12.50	5.25	3.60
0.27153066E-01	15.00	5.25	3.60
0.17365933E-01	17.50	5.25	3.60
0.10011932E-01	20.00	5.25	3.60
0.41872592E-02	22.50	5.25	3.60
0.26127224E-08	25.00	5.25	3.60
0.75424414E-01	0.	6.00	3.60
0.73466641E-01	2.50	6.00	3.60
0.67622826E-01	5.00	6.00	3.60
0.58170120E-01	7.50	6.00	3.60
0.45160214E-01	10.00	6.00	3.60
0.29708754E-01	12.50	6.00	3.60
0.18482234E-01	15.00	6.00	3.60
0.11820442E-01	17.50	6.00	3.60
0.68148062E-02	20.00	6.00	3.60
0.28501351E-02	22.50	6.00	3.60
0.17783976E-08	25.00	6.00	3.60
0.38182298E-01	0.	6.75	3.60
0.37191209E-01	2.50	6.75	3.60
0.34232880E-01	5.00	6.75	3.60
0.29447611E-01	7.50	6.75	3.60
0.22861572E-01	10.00	6.75	3.60
0.15039539E-01	12.50	6.75	3.60
0.93563100E-02	15.00	6.75	3.60
0.59838934E-02	17.50	6.75	3.60
0.34498771E-02	20.00	6.75	3.60
0.14428313E-02	22.50	6.75	3.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.90028291E-09	25.00	6.75	3.60
0.72741962E-08	0.	7.50	3.60
0.70852941E-08	2.50	7.50	3.60
0.65217031E-08	5.00	7.50	3.60
0.56100617E-08	7.50	7.50	3.60
0.43553562E-08	10.00	7.50	3.60
0.28651813E-08	12.50	7.50	3.60
0.17824698E-08	15.00	7.50	3.60
0.11399910E-08	17.50	7.50	3.60
0.65723579E-09	20.00	7.50	3.60
0.27487367E-09	22.50	7.50	3.60
0.17151281E-15	25.00	7.50	3.60
0.22866731E-00	0.	0.	5.40
0.22273188E-00	2.50	0.	5.40
0.20501491E-00	5.00	0.	5.40
0.17635675E-00	7.50	0.	5.40
0.13691408E-00	10.00	0.	5.40
0.9006692555E-01	12.50	0.	5.40
0.56033355E-01	15.00	0.	5.40
0.35836523E-01	17.50	0.	5.40
0.20660729E-01	20.00	0.	5.40
0.86408724E-02	22.50	0.	5.40
0.53916416E-02	25.00	0.	5.40
0.22585203E-00	0.	0.75	5.40
0.21998965E-00	2.50	0.75	5.40
0.20249084E-00	5.00	0.75	5.40
0.17418551E-00	7.50	0.75	5.40
0.13522844E-00	10.00	0.75	5.40
0.88966353E-01	12.50	0.75	5.40
0.55349493E-01	15.00	0.75	5.40
0.35395317E-01	17.50	0.75	5.40
0.20406361E-01	20.00	0.75	5.40
0.85344888E-02	22.50	0.75	5.40
0.53325261E-02	25.00	0.75	5.40
0.21747553E-00	0.	1.50	5.40
0.21183058E-00	2.50	1.50	5.40
0.19498077E-00	5.00	1.50	5.40
0.16772524E-00	7.50	1.50	5.40
0.13021303E-00	10.00	1.50	5.40

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.85660951E-01	12.50	1.50	5.40
0.53290887E-01	15.00	1.50	5.40
0.34082558E-01	17.50	1.50	5.40
0.19649521E-01	20.00	1.50	5.40
0.82179580E-02	22.50	1.50	5.40
0.51277559E-08	25.00	1.50	5.40
0.20374407E-00	0.	2.50	5.40
0.19845553E-00	2.50	2.50	5.40
0.18266963E-00	5.00	2.50	5.40
0.15713502E-00	7.50	2.50	5.40
0.12199134E-00	10.00	2.50	5.40
0.80252293E-01	12.50	2.50	5.40
0.49926085E-01	15.00	2.50	5.40
0.31930577E-01	17.50	2.50	5.40
0.18408844E-01	20.00	2.50	5.40
0.76990735E-02	22.50	2.50	5.40
0.48039878E-08	25.00	2.50	5.40
0.18499574E-00	0.	3.00	5.40
0.18019386E-00	2.50	3.00	5.40
0.16586056E-00	5.00	3.00	5.40
0.14267561E-00	7.50	3.00	5.40
0.11076582E-00	10.00	3.00	5.40
0.72867557E-01	12.50	3.00	5.40
0.45331937E-01	15.00	3.00	5.40
0.28992358E-01	17.50	3.00	5.40
0.16714881E-01	20.00	3.00	5.40
0.69906124E-02	22.50	3.00	5.40
0.43619298E-08	25.00	3.00	5.40
0.16169220E-00	0.	3.75	5.40
0.15749520E-00	2.50	3.75	5.40
0.14496744E-00	5.00	3.75	5.40
0.12470306E-00	7.50	3.75	5.40
0.96812880E-01	10.00	3.75	5.40
0.63688581E-01	12.50	3.75	5.40
0.39621566E-01	15.00	3.75	5.40
0.25340249E-01	17.50	3.75	5.40
0.14609341E-01	20.00	3.75	5.40
0.61100194E-02	22.50	3.75	5.40
0.38124663E-08	25.00	3.75	5.40

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.13440727E-00	0.	4.50	5.40
0.13391850E-00	2.50	4.50	5.40
0.12050475E-00	5.00	4.50	5.40
0.10365993E-00	7.50	4.50	5.40
0.80047608E-01	10.00	4.50	5.40
0.52941381E-01	12.50	4.50	5.40
0.32935579E-01	15.00	4.50	5.40
0.21064181E-01	17.50	4.50	5.40
0.12144072E-01	20.00	4.50	5.40
0.50789776E-02	22.50	4.50	5.40
0.31691275E-08	25.00	4.50	5.40
0.10381279E-00	0.	5.25	5.40
0.10111815E-00	2.50	5.25	5.40
0.93074834E-01	5.00	5.25	5.40
0.80064297E-01	7.50	5.25	5.40
0.62157699E-01	10.00	5.25	5.40
0.40890589E-01	12.50	5.25	5.40
0.25438613E-01	15.00	5.25	5.40
0.16269442E-01	17.50	5.25	5.40
0.93797756E-02	20.00	5.25	5.40
0.39228743E-02	22.50	5.25	5.40
0.24477542E-08	25.00	5.25	5.40
0.70662096E-01	0.	6.00	5.40
0.68827935E-01	2.50	6.00	5.40
0.63353100E-01	5.00	6.00	5.40
0.54497240E-01	7.50	6.00	5.40
0.42308784E-01	10.00	6.00	5.40
0.27832934E-01	12.50	6.00	5.40
0.17315260E-01	15.00	6.00	5.40
0.11074096E-01	17.50	6.00	5.40
0.63845170E-02	20.00	6.00	5.40
0.26701767E-02	22.50	6.00	5.40
0.16661091E-08	25.00	6.00	5.40
0.35771456E-01	0.	6.75	5.40
0.34842940E-01	2.50	6.75	5.40
0.32071406E-01	5.00	6.75	5.40
0.27588280E-01	7.50	6.75	5.40
0.21418085E-01	10.00	6.75	5.40
0.14089938E-01	12.50	6.75	5.40

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.87655498E-02	15.00	6.75	5.40
0.560606887E-02	17.50	6.75	5.40
0.32320509E-02	20.00	6.75	5.40
0.13517305E-02	22.50	6.75	5.40
0.84343880E-C9	25.00	6.75	5.40
0.68148170E-08	0.	7.50	5.40
0.66379265E-08	2.50	7.50	5.40
0.61099207E-C8	5.00	7.50	5.40
0.52558406E-C8	7.50	7.50	5.40
0.40803576E-08	10.00	7.50	5.40
0.26842730E-08	12.50	7.50	5.40
0.16699241E-C8	15.00	7.50	5.40
0.10680116E-C8	17.50	7.50	5.40
0.61573771E-09	20.00	7.50	5.40
0.25751806E-C9	22.50	7.50	5.40
0.16068344E-15	25.00	7.50	5.40
0.20762558E-00	0.	0.	7.20
0.20223629E-00	2.50	0.	7.20
0.18614966E-C0	5.00	0.	7.20
0.16012858E-C0	7.50	0.	7.20
0.12431539E-00	10.00	0.	7.20
0.81781172E-01	12.50	0.	7.20
0.50877222E-01	15.00	0.	7.20
0.32538882E-C1	17.50	0.	7.20
0.18759549E-01	20.00	0.	7.20
0.78457482E-02	22.50	0.	7.20
0.48955082E-08	25.00	0.	7.20
0.20506936E-C0	0.	0.75	7.20
0.19974642E-00	2.50	0.75	7.20
0.18385784E-00	5.00	0.75	7.20
0.15815713E-00	7.50	0.75	7.20
0.12278486E-C0	10.00	0.75	7.20
0.80774309E-01	12.50	0.75	7.20
0.50250839E-01	15.00	0.75	7.20
0.32136276E-01	17.50	0.75	7.20
0.18528587E-C1	20.00	0.75	7.20
0.77491537E-02	22.50	0.75	7.20
0.48352364E-08	25.00	0.75	7.20
0.19746365E-00	0.	1.50	7.20



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
00.19233814E-00	2.50	1.50	7.20
00.17703884E-00	5.00	1.50	7.20
00.15229133E-00	7.50	1.50	7.20
00.11823096E-00	10.00	1.50	7.20
00.77778516E-01	12.50	1.50	7.20
00.48387114E-01	15.00	1.50	7.20
00.30946317E-01	17.50	1.50	7.20
00.17841391E-01	20.00	1.50	7.20
00.74617495E-02	22.50	1.50	7.20
00.46559055E-08	25.00	1.50	7.20
00.18499574E-00	0.	2.25	7.20
00.18019385E-00	2.50	2.25	7.20
00.16586056E-00	5.00	2.25	7.20
00.14267561E-00	7.50	2.25	7.20
00.11076582E-00	10.00	2.25	7.20
00.72867553E-01	12.50	2.25	7.20
00.45331937E-01	15.00	2.25	7.20
00.28992358E-01	17.50	2.25	7.20
00.16714880E-01	20.00	2.25	7.20
00.69906124E-02	22.50	2.25	7.20
00.43619298E-08	25.00	2.25	7.20
00.16797262E-00	0.	3.00	7.20
00.16361259E-00	2.50	3.00	7.20
00.15059824E-00	5.00	3.00	7.20
00.12954675E-00	7.50	3.00	7.20
00.10057326E-00	10.00	3.00	7.20
00.66162335E-01	12.50	3.00	7.20
00.41160533E-01	15.00	3.00	7.20
00.26324511E-01	17.50	3.00	7.20
00.15176795E-01	20.00	3.00	7.20
00.63473437E-02	22.50	3.00	7.20
00.39605492E-08	25.00	3.00	7.20
00.14681349E-00	0.	3.75	7.20
00.14300265E-00	2.50	3.75	7.20
00.13162276E-00	5.00	3.75	7.20
00.11322800E-00	7.50	3.75	7.20
00.87904256E-01	10.00	3.75	7.20
00.57828023E-01	12.50	3.75	7.20
00.35975630E-01	15.00	3.75	7.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.23008465E-01	17.50	3.75	7.20
0.13265005E-01	20.00	3.75	7.20
0.55477814E-02	22.50	3.75	7.20
0.34616470E-08	25.00	3.75	7.20
0.12203925E-00	0.	4.50	7.20
0.11887151E-00	2.50	4.50	7.20
0.10941602E-00	5.00	4.50	7.20
0.94121222E-01	7.50	4.50	7.20
0.73070751E-01	10.00	4.50	7.20
0.48069768E-01	12.50	4.50	7.20
0.29904881E-01	15.00	4.50	7.20
0.19125875E-01	17.50	4.50	7.20
0.11026587E-01	20.00	4.50	7.20
0.46116150E-02	22.50	4.50	7.20
0.28775076E-08	25.00	4.50	7.20
0.94260047E-01	0.	5.25	7.20
0.91813362E-01	2.50	5.25	7.20
0.84510182E-01	5.00	5.25	7.20
0.72696861E-01	7.50	5.25	7.20
0.56438010E-01	10.00	5.25	7.20
0.37127878E-01	12.50	5.25	7.20
0.23097777E-01	15.00	5.25	7.20
0.14772344E-01	17.50	5.25	7.20
0.85166582E-02	20.00	5.25	7.20
0.35618953E-02	22.50	5.25	7.20
0.22225144E-08	25.00	5.25	7.20
0.64159837E-01	0.	6.00	7.20
0.62494458E-01	2.50	6.00	7.20
0.57523413E-01	5.00	6.00	7.20
0.49482459E-01	7.50	6.00	7.20
0.38415572E-01	10.00	6.00	7.20
0.25271775E-01	12.50	6.00	7.20
0.15721928E-01	15.00	6.00	7.20
0.10055069E-01	17.50	6.00	7.20
0.57970203E-02	20.00	6.00	7.20
0.24244697E-02	22.50	6.00	7.20
0.15127954E-08	25.00	6.00	7.20
0.32479803E-01	0.	6.75	7.20
0.31636732E-01	2.50	6.75	7.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.29120228E-01	5.00	6.75	7.20
0.25049634E-01	7.50	6.75	7.20
0.19447215E-01	10.00	6.75	7.20
0.12793396E-01	12.50	6.75	7.20
0.79589528E-02	15.00	6.75	7.20
0.50902039E-02	17.50	6.75	7.20
0.29346408E-02	20.00	6.75	7.20
0.12273457E-02	22.50	6.75	7.20
0.76582639E-09	25.00	6.75	7.20
0.61877244E-08	0.	7.50	7.20
0.60271110E-08	2.50	7.50	7.20
0.55476920E-08	5.00	7.50	7.20
0.47722036E-08	7.50	7.50	7.20
0.37048873E-08	10.00	7.50	7.20
0.24372688E-08	12.50	7.50	7.20
0.15162593E-08	15.00	7.50	7.20
0.96973424E-09	17.50	7.50	7.20
0.55907816E-09	20.00	7.50	7.20
0.23382151E-09	22.50	7.50	7.20
0.14589751E-15	25.00	7.50	7.20
0.18147141E-00	0.	0.	9.00
0.17676100E-00	2.50	0.	9.00
0.16270076E-00	5.00	0.	9.00
0.13995751E-00	7.50	0.	9.00
0.10865564E-00	10.00	0.	9.00
0.71479366E-01	12.50	0.	9.00
0.44468325E-01	15.00	0.	9.00
0.28440028E-01	17.50	0.	9.00
0.16396447E-01	20.00	0.	9.00
0.68574354E-02	22.50	0.	9.00
0.42788311E-08	25.00	0.	9.00
0.17923720E-00	0.	0.75	9.00
0.17458478E-00	2.50	0.75	9.00
0.16069765E-00	5.00	0.75	9.00
0.13823440E-00	7.50	0.75	9.00
0.10731790E-00	10.00	0.75	9.00
0.70599335E-01	12.50	0.75	9.00
0.43920846E-01	15.00	0.75	9.00
0.28089884E-01	17.50	0.75	9.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLWAY CODE

GROUP 1

FLUX	X	Y	Z
0.1619458E-01	20.00	0.75	9.00
0.67730089E-02	22.50	0.75	9.00
0.42261516E-06	25.00	0.75	9.00
0.17258957E-00	0.	1.50	9.00
0.16810970E-00	2.50	1.50	9.00
0.15473762E-00	5.00	1.50	9.00
0.13310751E-00	7.50	1.50	9.00
0.10333763E-00	10.00	1.50	9.00
0.67980917E-01	12.50	1.50	9.00
0.42291889E-01	15.00	1.50	9.00
0.27048074E-01	17.50	1.50	9.00
0.15593946E-01	20.00	1.50	9.00
0.65218088E-02	22.50	1.50	9.00
0.40694102E-08	25.00	1.50	9.00
0.16169221E-00	0.	2.25	9.00
0.15749520E-00	2.50	2.25	9.00
0.14496744E-00	5.00	2.25	9.00
0.12470306E-00	7.50	2.25	9.00
0.96812883E-01	10.00	2.25	9.00
0.63688584E-01	12.50	2.25	9.00
0.39621568E-01	15.00	2.25	9.00
0.25340251E-01	17.50	2.25	9.00
0.14609342E-01	20.00	2.25	9.00
0.61100196E-02	22.50	2.25	9.00
0.38124669E-08	25.00	2.25	9.00
0.14681345E-00	0.	3.00	9.00
0.14300265E-00	2.50	3.00	9.00
0.13162769E-00	5.00	3.00	9.00
0.11322801E-00	7.50	3.00	9.00
0.87904257E-01	10.00	3.00	9.00
0.57828024E-01	12.50	3.00	9.00
0.35975630E-01	15.00	3.00	9.00
0.23068468E-01	17.50	3.00	9.00
0.13265003E-01	20.00	3.00	9.00
0.55477817E-02	22.50	3.00	9.00
0.34616473E-08	25.00	3.00	9.00
0.12831967E-00	0.	3.75	9.00
0.12498891E-00	2.50	3.75	9.00
0.11504681E-00	5.00	3.75	9.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.98964912E-01	7.50	3.75	9.00
0.76831138E-01	10.00	3.75	9.00
0.50543547E-01	12.50	3.75	9.00
0.31443854E-01	15.00	3.75	9.00
0.20110136E-01	17.50	3.75	9.00
0.11594039E-01	20.00	3.75	9.00
0.48489390E-02	22.50	3.75	9.00
0.30255906E-08	25.00	3.75	9.00
0.10666622E-00	0.	4.50	9.00
0.10389751E-00	2.50	4.50	9.00
0.95633113E-01	5.00	4.50	9.00
0.82264966E-01	7.50	4.50	9.00
0.63866180E-01	10.00	4.50	9.00
0.42014519E-01	12.50	4.50	9.00
0.26137825E-01	15.00	4.50	9.00
0.16716629E-01	17.50	4.50	9.00
0.96375912E-02	20.00	4.50	9.00
0.40306996E-02	22.50	4.50	9.00
0.25150339E-08	25.00	4.50	9.00
0.82386305E-01	0.	5.25	9.00
0.80247823E-01	2.50	5.25	9.00
0.73864609E-01	5.00	5.25	9.00
0.63539390E-01	7.50	5.25	9.00
0.49328631E-01	10.00	5.25	9.00
0.32450956E-01	12.50	5.25	9.00
0.20188197E-01	15.00	5.25	9.00
0.12911503E-01	17.50	5.25	9.00
0.74438324E-02	20.00	5.25	9.00
0.31132108E-02	22.50	5.25	9.00
0.19425489E-08	25.00	5.25	9.00
0.56077758E-01	0.	6.00	9.00
0.54622161E-01	2.50	6.00	9.00
0.50277308E-01	5.00	6.00	9.00
0.43249257E-01	7.50	6.00	9.00
0.33576442E-01	10.00	6.00	9.00
0.22088341E-01	12.50	6.00	9.00
0.13741469E-01	15.00	6.00	9.00
0.87884529E-02	17.50	6.00	9.00
0.50667818E-02	20.00	6.00	9.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.21190643E-02	22.50	6.00	9.00
0.13222317E-08	25.00	6.00	9.00
0.26388398E-01	0.	6.75	9.00
0.27651519E-01	2.50	5.75	9.00
0.25452013E-01	5.00	6.75	9.00
0.21894185E-01	7.50	6.75	9.00
0.16997490E-01	10.00	6.75	9.00
0.11181839E-01	12.50	6.75	9.00
0.69563801E-02	15.00	6.75	9.00
0.44490016E-02	17.50	6.75	9.00
0.25649701E-02	20.00	6.75	9.00
0.10727395E-02	22.50	6.75	9.00
0.66935685E-09	25.00	6.75	9.00
0.54082695E-08	0.	7.50	9.00
0.52678800E-08	2.50	7.50	9.00
0.48488607E-08	5.00	7.50	9.00
0.41710590E-08	7.50	7.50	9.00
0.32381903E-08	10.00	7.50	9.00
0.21302511E-08	12.50	7.50	9.00
0.13252593E-08	15.00	7.50	9.00
0.84757887E-09	17.50	7.50	9.00
0.48865222E-09	20.00	7.50	9.00
0.20436750E-09	22.50	7.50	9.00
0.12751910E-15	25.00	7.50	9.00
0.15084881E-00	0.	8.00	10.80
0.14693327E-00	2.50	0.	10.80
0.13524564E-00	5.00	0.	10.80
0.11634023E-00	7.50	0.	10.80
0.90320423E-01	10.00	0.	10.80
0.59417503E-01	12.50	0.	10.80
0.36964466E-01	15.00	0.	10.80
0.23640884E-01	17.50	0.	10.80
0.13629611E-01	20.00	0.	10.80
0.57002699E-02	22.50	0.	10.80
0.35567950E-08	25.00	0.	10.80
0.14899161E-00	0.	0.75	10.80
0.14512428E-00	2.50	0.75	10.80
0.13358054E-00	5.00	0.75	10.80
0.11490789E-00	7.50	0.75	10.80

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.89208428E-01	10.00	0.75	10.80
0.58685974E-01	12.50	0.75	10.80
0.36509373E-01	15.00	0.75	10.80
0.23349825E-01	17.50	0.75	10.80
0.13461808E-01	20.00	0.75	10.80
0.56300899E-02	22.50	0.75	10.80
0.35130050E-08	25.00	0.75	10.80
0.14346575E-00	0.	1.50	10.80
0.13974185E-00	2.50	1.50	10.80
0.12862625E-00	5.00	1.50	10.80
0.11064614E-00	7.50	1.50	10.80
0.85899827E-01	10.00	1.50	10.80
0.56509402E-01	12.50	1.50	10.80
0.35155296E-01	15.00	1.50	10.80
0.22483816E-01	17.50	1.50	10.80
0.12962529E-01	20.00	1.50	10.80
0.54212787E-02	22.50	1.50	10.80
0.33827131E-08	25.00	1.50	10.80
0.13440727E-00	0.	2.25	10.80
0.13091850E-00	2.50	2.25	10.80
0.12050475E-00	5.00	2.25	10.80
0.10365991E-00	7.50	2.25	10.80
0.80476085E-01	10.00	2.25	10.80
0.52941383E-01	12.50	2.25	10.80
0.32935581E-01	15.00	2.25	10.80
0.21064182E-01	17.50	2.25	10.80
0.12144072E-01	20.00	2.25	10.80
0.50789776E-02	22.50	2.25	10.80
0.31691276E-08	25.00	2.25	10.80
0.12203926E-00	0.	3.00	10.80
0.11887152E-00	2.50	3.00	10.80
0.10941603E-00	5.00	3.00	10.80
0.94121226E-01	7.50	3.00	10.80
0.73070755E-01	10.00	3.00	10.80
0.48069770E-01	12.50	3.00	10.80
0.29904883E-01	15.00	3.00	10.80
0.19125877E-01	17.50	3.00	10.80
0.11026587E-01	20.00	3.00	10.80
0.46116152E-02	22.50	3.00	10.80

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CCDE

GROUP 1

FLUX	X	Y	Z
0.28775077E-08	25.00	3.00	10.80
0.10666622E-00	0.00	3.75	10.80
0.10389751E-00	2.50	3.75	10.80
0.95633116E-01	5.00	3.75	10.80
0.82264967E-01	7.50	3.75	10.80
0.63866181E-01	10.00	3.75	10.80
0.42514519E-01	12.50	3.75	10.80
0.26137827E-01	15.00	3.75	10.80
0.16716629E-01	17.50	3.75	10.80
0.96375908E-02	20.00	3.75	10.80
0.40306992E-02	22.50	3.75	10.80
0.25150343E-03	25.00	3.75	10.80
0.88666711E-01	0.00	4.50	10.80
0.86365213E-01	2.50	4.50	10.80
0.79495396E-01	5.00	4.50	10.80
0.68383072E-01	7.50	4.50	10.80
0.53089013E-01	10.00	4.50	10.80
0.34924732E-01	12.50	4.50	10.80
0.21727169E-01	15.00	4.50	10.80
0.13895763E-01	17.50	4.50	10.80
0.60112846E-02	20.00	4.50	10.80
0.33505346E-02	22.50	4.50	10.80
0.20906316E-03	25.00	4.50	10.80
0.68483935E-01	0.00	5.25	10.80
0.66706313E-01	2.50	5.25	10.80
0.61403244E-01	5.00	5.25	10.80
0.52817364E-01	7.50	5.25	10.80
0.41004617E-01	10.00	5.25	10.80
0.26974964E-01	12.50	5.25	10.80
0.16781518E-01	15.00	5.25	10.80
0.10732737E-01	17.50	5.25	10.80
0.61877146E-02	20.00	5.25	10.80
0.25878685E-02	22.50	5.25	10.80
0.16147514E-03	25.00	5.25	10.80
0.46614854E-01	0.00	6.00	10.80
0.454J4882E-01	2.50	6.00	10.80
0.41793209E-01	5.00	6.00	10.80
0.35951112E-01	7.50	6.00	10.80
0.27910548E-01	10.00	6.00	10.80



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.18361019E-01	12.50	6.00	10.80
0.11422650E-01	15.00	6.00	10.80
0.73054356E-02	17.50	6.00	10.80
0.42117820E-02	20.00	6.00	10.80
0.17614804E-02	22.50	6.00	10.80
0.10991102E-08	25.00	6.00	10.80
0.23597959E-01	0.	6.75	10.80
0.22985432E-01	2.50	6.75	10.80
0.21157084E-01	5.00	6.75	10.80
0.18199626E-01	7.50	6.75	10.80
0.14129230E-01	10.00	6.75	10.80
0.92949470E-02	12.50	6.75	10.80
0.57825179E-02	15.00	6.75	10.80
0.36982498E-02	17.50	6.75	10.80
0.21321414E-02	20.00	6.75	10.80
0.89171891E-03	22.50	6.75	10.80
0.55640547E-09	25.00	6.75	10.80
0.44956450E-08	0.	7.50	10.80
0.43789527E-08	2.50	7.50	10.80
0.40306343E-08	5.00	7.50	10.80
0.34672090E-08	7.50	7.50	10.80
0.26917583E-08	10.00	7.50	10.80
0.17707796E-08	12.50	7.50	10.80
0.11016269E-08	15.00	7.50	10.80
0.70455324E-09	17.50	7.50	10.80
0.40619407E-09	20.00	7.50	10.80
0.16988128E-09	22.50	7.50	10.80
0.10600075E-15	25.00	7.50	10.80
0.11651182E-00	0.	0.	12.60
0.11348755E-00	2.50	0.	12.60
0.10446032E-00	5.00	0.	12.60
0.89858259E-01	7.50	0.	12.60
0.69761215E-01	10.00	0.	12.60
0.45892581E-01	12.50	0.	12.60
0.28550423E-01	15.00	0.	12.60
0.18259622E-01	17.50	0.	12.60
0.10527167E-01	20.00	0.	12.60
0.44027448E-02	22.50	0.	12.60
0.27471788E-08	25.00	0.	12.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.11507737E-00	0.	0.75	12.60
0.11209033E-00	2.50	0.75	12.60
0.10317425E-00	5.00	0.75	12.60
0.88751955E-01	7.50	0.75	12.60
0.68902340E-01	10.00	0.75	12.60
0.45327567E-01	12.50	0.75	12.60
0.28198919E-01	15.00	0.75	12.60
0.18034815E-01	17.50	0.75	12.60
0.10397561E-01	20.00	0.75	12.60
0.43485393E-02	22.50	0.75	12.60
0.27133565E-02	25.00	0.75	12.60
0.11080933E-00	0.	1.50	12.60
0.10793307E-00	2.50	1.50	12.60
0.99347674E-01	5.00	1.50	12.60
0.85460284E-01	7.50	1.50	12.60
0.66346858E-01	10.00	1.50	12.60
0.43646437E-01	12.50	1.50	12.60
0.27153065E-01	15.00	1.50	12.60
0.17365932E-01	17.50	1.50	12.60
0.10011932E-01	20.00	1.50	12.60
0.41872591E-02	22.50	1.50	12.60
0.26127224E-02	25.00	1.50	12.60
0.10381279E-00	0.	2.25	12.60
0.10111815E-00	2.50	2.25	12.60
0.93074836E-01	5.00	2.25	12.60
0.80064298E-01	7.50	2.25	12.60
0.62157699E-01	10.00	2.25	12.60
0.40890589E-01	12.50	2.25	12.60
0.25438613E-01	15.00	2.25	12.60
0.16269442E-01	17.50	2.25	12.60
0.93797751E-02	20.00	2.25	12.60
0.39228742E-02	22.50	2.25	12.60
0.24477542E-02	25.00	2.25	12.60
0.94260047E-01	0.	3.00	12.60
0.91813361E-01	2.50	3.00	12.60
0.84510183E-01	5.00	3.00	12.60
0.72696859E-01	7.50	3.00	12.60
0.56438009E-01	10.00	3.00	12.60
0.37127878E-01	12.50	3.00	12.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.23097777E-01	15.00	3.00	12.60
0.14772345E-01	17.50	3.00	12.60
0.85166582E-02	20.00	3.00	12.60
0.35618953E-02	22.50	3.00	12.60
0.22225144E-08	25.00	3.00	12.60
0.82386302E-01	0.	3.75	12.60
0.80247820E-01	2.50	3.75	12.60
0.73864606E-01	5.00	3.75	12.60
0.63539387E-01	7.50	3.75	12.60
0.49328629E-01	10.00	3.75	12.60
0.32450955E-01	12.50	3.75	12.60
0.20188197E-01	15.00	3.75	12.60
0.12911502E-01	17.50	3.75	12.60
0.74438319E-02	20.00	3.75	12.60
0.31132105E-02	22.50	3.75	12.60
0.19425488E-08	25.00	3.75	12.60
0.68483932E-01	0.	4.50	12.60
0.66706309E-01	2.50	4.50	12.60
0.61400241E-01	5.00	4.50	12.60
0.52817362E-01	7.50	4.50	12.60
0.41004614E-01	10.00	4.50	12.60
0.26974983E-01	12.50	4.50	12.60
0.16781516E-01	15.00	4.50	12.60
0.10732736E-01	17.50	4.50	12.60
0.61877143E-02	20.00	4.50	12.60
0.25878684E-02	22.50	4.50	12.60
0.16147512E-08	25.00	4.50	12.60
0.52895267E-01	0.	5.25	12.60
0.51522276E-01	2.50	5.25	12.60
0.47423998E-01	5.00	5.25	12.60
0.40794799E-01	7.50	5.25	12.60
0.31670932E-01	10.00	5.25	12.60
0.20834796E-01	12.50	5.25	12.60
0.12961622E-01	15.00	5.25	12.60
0.82896958E-02	17.50	5.25	12.60
0.47792348E-02	20.00	5.25	12.60
0.19988045E-02	22.50	5.25	12.60
0.12471931E-08	25.00	5.25	12.60
0.36004137E-01	0.	6.00	12.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.35369586E-01	2.50	6.00	12.60
0.32280019E-01	5.00	6.00	12.60
0.27767733E-01	7.50	6.00	12.60
0.21557404E-01	10.00	6.00	12.60
0.14181589E-01	12.50	6.00	12.60
0.88225664E-02	15.00	6.00	12.60
0.56425342E-02	17.50	6.00	12.60
0.32530742E-02	20.00	6.00	12.60
0.13605230E-02	22.50	6.00	12.60
0.84892506E-09	25.00	6.00	12.60
0.18226469E-01	0.	6.75	12.60
0.17753369E-01	2.50	6.75	12.60
0.16341198E-01	5.00	6.75	12.60
0.14056932E-01	7.50	6.75	12.60
0.10913061E-01	10.00	6.75	12.60
0.71791828E-02	12.50	6.75	12.60
0.44662710E-02	15.00	6.75	12.60
0.28564348E-02	17.50	6.75	12.60
0.16468123E-02	20.00	6.75	12.60
0.68874118E-03	22.50	6.75	12.60
0.42975356E-09	25.00	6.75	12.60
0.34723229E-08	0.	7.50	12.60
0.33821926E-08	2.50	7.50	12.60
0.31131604E-08	5.00	7.50	12.60
0.26779848E-08	7.50	7.50	12.60
0.20790462E-08	10.00	7.50	12.60
0.13677055E-08	12.50	7.50	12.60
0.85086891E-09	15.00	7.50	12.60
0.54417914E-09	17.50	7.50	12.60
0.31373405E-09	20.00	7.50	12.60
0.13121202E-09	22.50	7.50	12.60
0.81872309E-16	25.00	7.50	12.60
0.79305921E-01	0.	0.	14.40
0.77247394E-01	2.50	0.	14.40
0.71102847E-01	5.00	0.	14.40
0.61163682E-01	7.50	0.	14.40
0.47484257E-01	10.00	0.	14.40
0.31237631E-01	12.50	0.	14.40
0.19433371E-01	15.00	0.	14.40

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.12428749E-01	17.50	0.	14.40
0.71655110E-02	20.00	0.	14.40
0.29968093E-02	22.50	0.	14.40
0.18699179E-08	25.00	0.	14.40
0.78329533E-01	0.	0.75	14.40
0.76296352E-01	2.50	0.75	14.40
0.70227453E-01	5.00	0.75	14.40
0.60410655E-01	7.50	0.75	14.40
0.46899647E-01	10.00	0.75	14.40
0.30853043E-01	12.50	0.75	14.40
0.19194114E-01	15.00	0.75	14.40
0.12275730E-01	17.50	0.75	14.40
0.70772916E-02	20.00	0.75	14.40
0.29599136E-02	22.50	0.75	14.40
0.18468961E-08	25.00	0.75	14.40
0.75424412E-01	0.	1.50	14.40
0.73466640E-01	2.50	1.50	14.40
0.67622826E-01	5.00	1.50	14.40
0.58170120E-01	7.50	1.50	14.40
0.45160214E-01	10.00	1.50	14.40
0.29708752E-01	12.50	1.50	14.40
0.18482234E-01	15.00	1.50	14.40
0.11620442E-01	17.50	1.50	14.40
0.68148060E-02	20.00	1.50	14.40
0.28501351E-02	22.50	1.50	14.40
0.17783976E-08	25.00	1.50	14.40
0.70662095E-01	0.	2.25	14.40
0.68827935E-01	2.50	2.25	14.40
0.63353101E-01	5.00	2.25	14.40
0.54497240E-01	7.50	2.25	14.40
0.42308784E-01	10.00	2.25	14.40
0.27832934E-01	12.50	2.25	14.40
0.17315260E-01	15.00	2.25	14.40
0.11074096E-01	17.50	2.25	14.40
0.63845169E-02	20.00	2.25	14.40
0.26701767E-02	22.50	2.25	14.40
0.16661090E-08	25.00	2.25	14.40
0.64159837E-01	0.	3.00	14.40
0.62494458E-01	2.50	3.00	14.40

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.57523414E-01	5.00	3.00	14.40
0.49482459E-01	7.50	3.00	14.40
0.38415571E-01	10.00	3.00	14.40
0.25271775E-01	12.50	3.00	14.40
0.15721928E-01	15.00	3.00	14.40
0.10055069E-01	17.50	3.00	14.40
0.57970203E-02	20.00	3.00	14.40
0.24244697E-02	22.50	3.00	14.40
0.15127954E-08	25.00	3.00	14.40
0.56077757E-01	0.	3.75	14.40
0.54622159E-01	2.50	3.75	14.40
0.50277307E-01	5.00	3.75	14.40
0.43249255E-01	7.50	3.75	14.40
0.33576441E-01	10.00	3.75	14.40
0.22088341E-01	12.50	3.75	14.40
0.13741469E-01	15.00	3.75	14.40
0.87884527E-02	17.50	3.75	14.40
0.50667816E-02	20.00	3.75	14.40
0.21190641E-02	22.50	3.75	14.40
0.13222317E-08	25.00	3.75	14.40
0.46614852E-01	0.	4.50	14.40
0.45404880E-01	2.50	4.50	14.40
0.41793206E-01	5.00	4.50	14.40
0.35951110E-01	7.50	4.50	14.40
0.27910546E-01	10.00	4.50	14.40
0.18361019E-01	12.50	4.50	14.40
0.11422649E-01	15.00	4.50	14.40
0.73054352E-02	17.50	4.50	14.40
0.42117818E-02	20.00	4.50	14.40
0.17614803E-02	22.50	4.50	14.40
0.10991102E-08	25.00	4.50	14.40
0.36004137E-01	0.	5.25	14.40
0.35069586E-01	2.50	5.25	14.40
0.32280018E-01	5.00	5.25	14.40
0.27767733E-01	7.50	5.25	14.40
0.21557404E-01	10.00	5.25	14.40
0.14181589E-01	12.50	5.25	14.40
0.88225666E-02	15.00	5.25	14.40
0.56425342E-02	17.50	5.25	14.40

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.32530742E-02	20.00	5.25	14.40
0.13605230E-02	22.50	5.25	14.40
0.84892507E-09	25.00	5.25	14.40
0.24506880E-01	0.	6.00	14.40
0.23870762E-01	2.50	6.00	14.40
0.21971991E-01	5.00	6.00	14.40
0.18900619E-01	7.50	6.00	14.40
0.14673444E-01	10.00	6.00	14.40
0.96529599E-02	12.50	6.00	14.40
0.60052428E-02	15.00	6.00	14.40
0.38406951E-02	17.50	6.00	14.40
0.22142649E-02	20.00	6.00	14.40
0.92606514E-03	22.50	6.00	14.40
0.57783648E-09	25.00	6.00	14.40
0.12406182E-01	0.	6.75	14.40
0.12084158E-01	2.50	6.75	14.40
0.11122938E-01	5.00	6.75	14.40
0.95681100E-02	7.50	6.75	14.40
0.74281761E-02	10.00	6.75	14.40
0.48866431E-02	12.50	6.75	14.40
0.30400498E-02	15.00	6.75	14.40
0.19442850E-02	17.50	6.75	14.40
0.11209331E-02	20.00	6.75	14.40
0.46880438E-03	22.50	6.75	14.40
0.29251968E-09	25.00	6.75	14.40
0.23635006E-08	0.	7.50	14.40
0.23021517E-08	2.50	7.50	14.40
0.21190299E-08	5.00	7.50	14.40
0.18228197E-08	7.50	7.50	14.40
0.14151412E-08	10.00	7.50	14.40
0.93095393E-09	12.50	7.50	14.40
0.57915960E-09	15.00	7.50	14.40
0.37040557E-09	17.50	7.50	14.40
0.21354887E-09	20.00	7.50	14.40
0.89311876E-10	22.50	7.50	14.40
0.55727896E-16	25.00	7.50	14.40
0.40147251E-01	0.	0.	16.20
0.39105158E-01	2.50	0.	16.20
0.35994586E-01	5.00	0.	16.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.30963057E-01	7.50	0.	16.20
0.24538084E-01	10.00	0.	16.20
0.15813510E-01	12.50	0.	16.20
0.98378082E-02	15.00	0.	16.20
0.62918391E-02	17.50	0.	16.20
0.36274161E-02	20.00	0.	16.20
0.15170829E-02	22.50	0.	16.20
0.94661362E-09	25.00	0.	16.20
0.39652971E-01	0.	0.75	16.20
0.38623708E-01	2.50	0.75	16.20
0.35551433E-01	5.00	0.75	16.20
0.30581850E-01	7.50	0.75	16.20
0.23742135E-01	10.00	0.75	16.20
0.15618819E-01	12.50	0.75	16.20
0.97166885E-02	15.00	0.75	16.20
0.62143760E-02	17.50	0.75	16.20
0.35827564E-02	20.00	0.75	16.20
0.14984050E-02	22.50	0.75	16.20
0.93495925E-09	25.00	0.75	16.20
0.38182304E-01	0.	1.50	16.20
0.37191215E-01	2.50	1.50	16.20
0.34232885E-01	5.00	1.50	16.20
0.29447617E-01	7.50	1.50	16.20
0.22861576E-01	10.00	1.50	16.20
0.15039542E-01	12.50	1.50	16.20
0.93563115E-02	15.00	1.50	16.20
0.59838944E-02	17.50	1.50	16.20
0.34498774E-02	20.00	1.50	16.20
0.14428316E-02	22.50	1.50	16.20
0.90028305E-09	25.00	1.50	16.20
0.35771462E-01	0.	2.25	16.20
0.34842952E-01	2.50	2.25	16.20
0.32071412E-01	5.00	2.25	16.20
0.27588286E-01	7.50	2.25	16.20
0.21418090E-01	10.00	2.25	16.20
0.14089941E-01	12.50	2.25	16.20
0.87655511E-02	15.00	2.25	16.20
0.56060697E-02	17.50	2.25	16.20
0.32320513E-02	20.00	2.25	16.20



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.13517307E-02	22.50	2.25	16.20
0.84343891E-09	25.00	2.25	16.20
0.32479808E-01	0.	3.00	16.20
0.31636737E-01	2.50	3.00	16.20
0.29120233E-01	5.00	3.00	16.20
0.25049639E-01	7.50	3.00	16.20
0.19447219E-01	10.00	3.00	16.20
0.12793399E-01	12.50	3.00	16.20
0.79589538E-02	15.00	3.00	16.20
0.50902050E-02	17.50	3.00	16.20
0.29346412E-02	20.00	3.00	16.20
0.12273458E-02	22.50	3.00	16.20
0.76582652E-09	25.00	3.00	16.20
0.28388394E-01	0.	3.75	16.20
0.27651523E-01	2.50	3.75	16.20
0.25452017E-01	5.00	3.75	16.20
0.21894187E-01	7.50	3.75	16.20
0.16997492E-01	10.00	3.75	16.20
0.11181840E-01	12.50	3.75	16.20
0.69563812E-02	15.00	3.75	16.20
0.44490021E-02	17.50	3.75	16.20
0.25649705E-02	20.00	3.75	16.20
0.10727396E-02	22.50	3.75	16.20
0.66935690E-09	25.00	3.75	16.20
0.23597962E-01	0.	4.50	16.20
0.22985435E-01	2.50	4.50	16.20
0.21157087E-01	5.00	4.50	16.20
0.18199627E-01	7.50	4.50	16.20
0.14129232E-01	10.00	4.50	16.20
0.92949484E-02	12.50	4.50	16.20
0.57825185E-02	15.00	4.50	16.20
0.36982503E-02	17.50	4.50	16.20
0.21321417E-02	20.00	4.50	16.20
0.89171903E-03	22.50	4.50	16.20
0.55640552E-09	25.00	4.50	16.20
0.18226472E-01	0.	5.25	16.20
0.17753372E-01	2.50	5.25	16.20
0.16341201E-01	5.00	5.25	16.20
0.14056934E-01	7.50	5.25	16.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.10913063E-01	10.00	5.25	16.20
0.71791841E-02	12.50	5.25	16.20
0.44662718E-02	15.00	5.25	16.20
0.28564353E-02	17.50	5.25	16.20
0.16468126E-02	20.00	5.25	16.20
0.68874126E-03	22.50	5.25	16.20
0.42975364E-09	25.00	5.25	16.20
0.12406185E-01	0.	6.00	16.20
0.12084159E-01	2.50	6.00	16.20
0.11122940E-01	5.00	6.00	16.20
0.95681114E-02	7.50	6.00	16.20
0.74281774E-02	10.00	6.00	16.20
0.48866440E-02	12.50	6.00	16.20
0.30400503E-02	15.00	6.00	16.20
0.19442854E-02	17.50	6.00	16.20
0.11209333E-02	20.00	6.00	16.20
0.46880447E-03	22.50	6.00	16.20
0.29251973E-09	25.00	6.00	16.20
0.62804152E-02	0.	6.75	16.20
0.61173961E-02	2.50	6.75	16.20
0.56307951E-02	5.00	6.75	16.20
0.48436901E-02	7.50	6.75	16.20
0.37603856E-02	10.00	6.75	16.20
0.24737785E-02	12.50	6.75	16.20
0.15389726E-02	15.00	6.75	16.20
0.98426068E-03	17.50	6.75	16.20
0.56745301E-03	20.00	6.75	16.20
0.23732411E-03	22.50	6.75	16.20
0.14808303E-09	25.00	6.75	16.20
0.11964813E-08	0.	7.50	16.20
0.11654245E-08	2.50	7.50	16.20
0.10727222E-08	5.00	7.50	16.20
0.92277099E-09	7.50	7.50	16.20
0.71639074E-09	10.00	7.50	16.20
0.47127934E-09	12.50	7.50	16.20
0.29318953E-09	15.00	7.50	16.20
0.18751141E-09	17.50	7.50	16.20
0.10810542E-09	20.00	7.50	16.20
0.45212594E-10	22.50	7.50	16.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.28211284E-16	25.00	7.50	16.20
0.152968895E-07	0.	0.	18.00
0.14899837E-07	2.50	0.	18.00
0.13714649E-07	5.00	0.	18.00
0.11797535E-07	7.50	0.	18.00
0.91589849E-08	10.00	0.	18.00
0.60252598E-08	12.50	0.	18.00
0.37483992E-08	15.00	0.	18.00
0.23973150E-08	17.50	0.	18.00
0.13821171E-08	20.00	0.	18.00
0.57803854E-09	22.50	0.	18.00
0.36067849E-15	25.00	0.	18.00
0.15108565E-07	0.	0.75	18.00
0.14716396E-07	2.50	0.75	18.00
0.13545799E-07	5.00	0.75	18.00
0.11652289E-07	7.50	0.75	18.00
0.90462225E-08	10.00	0.75	18.00
0.59510789E-08	12.50	0.75	18.00
0.37022503E-08	15.00	0.75	18.00
0.23678000E-08	17.50	0.75	18.00
0.13651010E-08	20.00	0.75	18.00
0.57092193E-09	22.50	0.75	18.00
0.35623794E-15	25.00	0.75	18.00
0.14548212E-07	0.	1.50	18.00
0.14170588E-07	2.50	1.50	18.00
0.13043406E-07	5.00	1.50	18.00
0.11220123E-07	7.50	1.50	18.00
0.87107122E-08	10.00	1.50	18.00
0.57303626E-08	12.50	1.50	18.00
0.35649396E-08	15.00	1.50	18.00
0.22799820E-08	17.50	1.50	18.00
0.13144715E-08	20.00	1.50	18.00
0.54974733E-09	22.50	1.50	18.00
0.34302562E-15	25.00	1.50	18.00
0.13629634E-07	0.	2.25	18.00
0.13275853E-07	2.50	2.25	18.00
0.12219841E-07	5.00	2.25	18.00
0.10511681E-07	7.50	2.25	18.00
0.81607153E-08	10.00	2.25	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.53685461E-08	12.50	2.25	18.00
0.33398482E-08	15.00	2.25	18.00
0.21360232E-08	17.50	2.25	18.00
0.12314754E-08	20.00	2.25	18.00
0.51503611E-09	22.50	2.25	18.00
0.32136688E-15	25.00	2.25	18.00
0.12375449E-07	0.	3.00	18.00
0.12054222E-07	2.50	3.00	18.00
0.11095384E-07	5.00	3.00	18.00
0.95444072E-08	7.50	3.00	18.00
0.74097744E-08	10.00	3.00	18.00
0.48745377E-08	12.50	3.00	18.00
0.30325187E-08	15.00	3.00	18.00
0.19394685E-08	17.50	3.00	18.00
0.11181563E-08	20.00	3.00	18.00
0.46764302E-09	22.50	3.00	18.00
0.29179502E-15	25.00	3.00	18.00
0.10816538E-07	0.	3.75	18.00
0.10535776E-07	2.50	3.75	18.00
0.96977212E-08	5.00	3.75	18.00
0.83421178E-08	7.50	3.75	18.00
0.64763805E-08	10.00	3.75	18.00
0.42605022E-08	12.50	3.75	18.00
0.26505186E-08	15.00	3.75	18.00
0.16951577E-08	17.50	3.75	18.00
0.97730440E-09	20.00	3.75	18.00
0.40873497E-09	22.50	3.75	18.00
0.25503820E-15	25.00	3.75	18.00
0.89912898E-08	0.	4.50	18.00
0.87579051E-08	2.50	4.50	18.00
0.80612682E-08	5.00	4.50	18.00
0.69344178E-08	7.50	4.50	18.00
0.53835164E-08	10.00	4.50	18.00
0.35415591E-08	12.50	4.50	18.00
0.22032537E-08	15.00	4.50	18.00
0.14091063E-08	17.50	4.50	18.00
0.81238811E-09	20.00	4.50	18.00
0.33976253E-09	22.50	4.50	18.00
0.21200150E-15	25.00	4.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.69446459E-08	0.	5.25	18.00
0.67643854E-08	2.50	5.25	18.00
0.62263206E-08	5.00	5.25	18.00
0.53559697E-08	7.50	5.25	18.00
0.41580924E-08	10.00	5.25	18.00
0.27354109E-08	12.50	5.25	18.00
0.17017378E-08	15.00	5.25	18.00
0.10883582E-08	17.50	5.25	18.00
0.62746811E-09	20.00	5.25	18.00
0.26242404E-09	22.50	5.25	18.00
0.16374462E-15	25.00	5.25	18.00
0.47270013E-08	0.	6.00	18.00
0.46043035E-08	2.50	6.00	18.00
0.42380599E-08	5.00	6.00	18.00
0.36456396E-08	7.50	6.00	18.00
0.28302823E-08	10.00	6.00	18.00
0.18619078E-08	12.50	6.00	18.00
0.11583192E-08	15.00	6.00	18.00
0.74081115E-09	17.50	6.00	18.00
0.42709773E-09	20.00	6.00	18.00
0.17862375E-09	22.50	6.00	18.00
0.11145580E-15	25.00	6.00	18.00
0.23929622E-08	0.	6.75	18.00
0.23308486E-08	2.50	6.75	18.00
0.21454442E-08	5.00	6.75	18.00
0.18455417E-08	7.50	6.75	18.00
0.14327811E-08	10.00	6.75	18.00
0.94255848E-09	12.50	6.75	18.00
0.58637897E-09	15.00	6.75	18.00
0.37502277E-09	17.50	6.75	18.00
0.21621081E-09	20.00	6.75	18.00
0.90425173E-10	22.50	6.75	18.00
0.56422558E-16	25.00	6.75	18.00
0.45588300E-15	0.	7.50	18.00
0.44404977E-15	2.50	7.50	18.00
0.40872838E-15	5.00	7.50	18.00
0.35159397E-15	7.50	7.50	18.00
0.27295902E-15	10.00	7.50	18.00
0.17956673E-15	12.50	7.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

FLUX	X	Y	Z
0.11171100E-15	15.00	7.50	18.00
0.71445554E-16	17.50	7.50	18.00
0.41190301E-16	20.00	7.50	18.00
0.17226890E-16	22.50	7.50	18.00
0.10749056E-22	25.00	7.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.11280040E-01	0.	0.	0.
0.11040740E-01	2.50	0.	0.
0.10310376E-01	5.00	0.	0.
0.92248646E-02	7.50	0.	0.
0.79204866E-02	10.00	0.	0.
0.67023052E-02	12.50	0.	0.
0.53253913E-02	15.00	0.	0.
0.40046573E-02	17.50	0.	0.
0.27707723E-02	20.00	0.	0.
0.13651759E-02	22.50	0.	0.
0.53707522E-09	25.00	0.	0.
0.11141165E-01	0.	0.75	0.
0.10904810E-01	2.50	0.75	0.
0.10183439E-01	5.00	0.75	0.
0.91112912E-02	7.50	0.75	0.
0.78229721E-02	10.00	0.75	0.
0.66197887E-02	12.50	0.75	0.
0.52598269E-02	15.00	0.75	0.
0.39553533E-02	17.50	0.75	0.
0.27366594E-02	20.00	0.75	0.
0.13483683E-02	22.50	0.75	0.
0.53046294E-09	25.00	0.75	0.
0.10727955E-01	0.	1.50	0.
0.10500367E-01	2.50	1.50	0.
0.98057510E-02	5.00	1.50	0.
0.87733679E-02	7.50	1.50	0.
0.75328305E-02	10.00	1.50	0.
0.63742711E-02	12.50	1.50	0.
0.50647481E-02	15.00	1.50	0.
0.38086555E-02	17.50	1.50	0.
0.26351610E-02	20.00	1.50	0.
0.12983594E-02	22.50	1.50	0.
0.51078890E-09	25.00	1.50	0.
0.10050590E-01	0.	2.25	0.
0.98373711E-02	2.50	2.25	0.
0.91866132E-02	5.00	2.25	0.
0.82194149E-02	7.50	2.25	0.
0.70572054E-02	10.00	2.25	0.
0.59717979E-02	12.50	2.25	0.

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.47449584E-02	15.00	2.25	0.
0.35681759E-02	17.50	2.25	0.
0.24687762E-02	20.00	2.25	0.
0.12163806E-02	22.50	2.25	0.
0.47853752E-09	25.00	2.25	0.
0.91257446E-02	0.	3.00	0.
0.89321462E-02	2.50	3.00	0.
0.83412702E-02	5.00	3.00	0.
0.74630726E-02	7.50	3.00	0.
0.64078084E-02	10.00	3.00	0.
0.54222789E-02	12.50	3.00	0.
0.43308331E-02	15.00	3.00	0.
0.32398335E-02	17.50	3.00	0.
0.22416019E-02	20.00	3.00	0.
0.11044504E-02	22.50	3.00	0.
0.43450300E-09	25.00	3.00	0.
0.79761932E-02	0.	3.75	0.
0.78069821E-02	2.50	3.75	0.
0.72905378E-02	5.00	3.75	0.
0.65229648E-02	7.50	3.75	0.
0.56006300E-02	10.00	3.75	0.
0.47392455E-02	12.50	3.75	0.
0.37656204E-02	15.00	3.75	0.
0.28317204E-02	17.50	3.75	0.
0.19592319E-02	20.00	3.75	0.
0.96532516E-03	22.50	3.75	0.
0.37976954E-09	25.00	3.75	0.
0.66302418E-02	0.	4.50	0.
0.64895584E-02	2.50	4.50	0.
0.60602877E-02	5.00	4.50	0.
0.54222395E-02	7.50	4.50	0.
0.46555545E-02	10.00	4.50	0.
0.39395162E-02	12.50	4.50	0.
0.31301864E-02	15.00	4.50	0.
0.23538785E-02	17.50	4.50	0.
0.16228619E-02	20.00	4.50	0.
0.80243029E-03	22.50	4.50	0.
0.31568491E-09	25.00	4.50	0.
0.51210316E-02	0.	5.25	0.



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.50123914E-02	2.50	5.25	0.
0.46808136E-02	5.00	5.25	0.
0.41880013E-02	7.50	5.25	0.
0.35958260E-02	10.00	5.25	0.
0.30427831E-02	12.50	5.25	0.
0.24176772E-02	15.00	5.25	0.
0.18180765E-02	17.50	5.25	0.
0.12579043E-02	20.00	5.25	0.
0.61977693E-03	22.50	5.25	0.
0.24382707E-09	25.00	5.25	0.
0.34857247E-02	0.	6.00	0.
0.34117766E-02	2.50	6.00	0.
0.31860822E-02	5.00	6.00	0.
0.28506403E-02	7.50	6.00	0.
0.24475653E-02	10.00	6.00	0.
0.20711264E-02	12.50	6.00	0.
0.16456366E-02	15.00	6.00	0.
0.12375072E-02	17.50	6.00	0.
0.85621582E-03	20.00	6.00	0.
0.42186259E-03	22.50	6.00	0.
0.16596539E-09	25.00	6.00	0.
0.17645875E-02	0.	6.75	0.
0.17271526E-02	2.50	6.75	0.
0.16128966E-02	5.00	6.75	0.
0.14430871E-02	7.50	6.75	0.
0.12390374E-02	10.00	6.75	0.
0.10484717E-02	12.50	6.75	0.
0.83307493E-03	15.00	6.75	0.
0.62646657E-03	17.50	6.75	0.
0.43344438E-03	20.00	6.75	0.
0.21356061E-03	22.50	6.75	0.
0.84017096E-10	25.00	6.75	0.
0.33617140E-09	0.	7.50	0.
0.32903969E-09	2.50	7.50	0.
0.30727318E-09	5.00	7.50	0.
0.27492239E-09	7.50	7.50	0.
0.23604889E-09	10.00	7.50	0.
0.19974426E-09	12.50	7.50	0.
0.15670905E-09	15.00	7.50	0.

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.11934809E-09	17.50	7.50	0.
0.82575449E-10	20.00	7.50	0.
0.40685412E-10	22.50	7.50	0.
0.16006088E-16	25.00	7.50	0.
0.11141164E-01	0.	0.	1.80
0.10904810E-01	2.50	0.	1.80
0.10183439E-01	5.00	0.	1.80
0.91112912E-02	7.50	0.	1.80
0.78229721E-02	10.00	0.	1.80
0.66197887E-02	12.50	0.	1.80
0.52598269E-02	15.00	0.	1.80
0.39553533E-02	17.50	0.	1.80
0.27366594E-02	20.00	0.	1.80
0.13483683E-02	22.50	0.	1.80
0.53046293E-09	25.00	0.	1.80
0.11003998E-01	0.	0.75	1.80
0.10770553E-01	2.50	0.75	1.80
0.10058063E-01	5.00	0.75	1.80
0.89991162E-02	7.50	0.75	1.80
0.77266587E-02	10.00	0.75	1.80
0.65382881E-02	12.50	0.75	1.80
0.51950696E-02	15.00	0.75	1.80
0.39066563E-02	17.50	0.75	1.80
0.27029666E-02	20.00	0.75	1.80
0.13317676E-02	22.50	0.75	1.80
0.52393206E-09	25.00	0.75	1.80
0.10595877E-01	0.	1.50	1.80
0.10371090E-01	2.50	1.50	1.80
0.96850261E-02	5.00	1.50	1.80
0.86653531E-02	7.50	1.50	1.80
0.74400890E-02	10.00	1.50	1.80
0.62957931E-02	12.50	1.50	1.80
0.50023925E-02	15.00	1.50	1.80
0.37617646E-02	17.50	1.50	1.80
0.26027179E-02	20.00	1.50	1.80
0.12823744E-02	22.50	1.50	1.80
0.50450023E-09	25.00	1.50	1.80
0.99268505E-02	0.	2.25	1.80
0.97162569E-02	2.50	2.25	1.80

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.90735108E-02	5.00	2.25	1.80
0.81182201E-02	7.50	2.25	1.80
0.69703195E-02	10.00	2.25	1.80
0.58982750E-02	12.50	2.25	1.80
0.46865400E-02	15.00	2.25	1.80
0.35242458E-02	17.50	2.25	1.80
0.24383815E-02	20.00	2.25	1.80
0.12014049E-02	22.50	2.25	1.80
0.47264593E-09	25.00	2.25	1.80
0.90133915E-02	0.	3.75	1.80
0.88221766E-02	2.50	3.75	1.80
0.82385754E-02	5.00	3.75	1.80
0.73711897E-02	7.50	3.75	1.80
0.63289176E-02	10.00	3.75	1.80
0.53555217E-02	12.50	3.75	1.80
0.42552892E-02	15.00	3.75	1.80
0.31999482E-02	17.50	3.75	1.80
0.22140040E-02	20.00	3.75	1.80
0.10908528E-02	22.50	3.75	1.80
0.42915355E-09	25.00	3.75	1.80
0.78779931E-02	0.	4.50	1.80
0.77108653E-02	2.50	4.50	1.80
0.72007790E-02	5.00	4.50	1.80
0.64426561E-02	7.50	4.50	1.80
0.55316769E-02	10.00	4.50	1.80
0.46808975E-02	12.50	4.50	1.80
0.37192593E-02	15.00	4.50	1.80
0.27968572E-02	17.50	4.50	1.80
0.19351105E-02	20.00	4.50	1.80
0.95344039E-03	22.50	4.50	1.80
0.37509396E-09	25.00	4.50	1.80
0.65486125E-02	0.	5.25	1.80
0.64096867E-02	2.50	5.25	1.80
0.59856755E-02	5.00	5.25	1.80
0.53554828E-02	7.50	5.25	1.80
0.45982277E-02	10.00	5.25	1.80
0.38910142E-02	12.50	5.25	1.80
0.30916487E-02	15.00	5.25	1.80
0.23248964E-02	17.50	5.25	1.80

LOLISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.16065681E-02	20.00	4.50	1.80
0.0079255103E-03	22.50	4.50	1.80
0.0031179833E-03	25.00	4.50	1.80
0.0050579833E-02	0.00	5.25	1.80
0.0049506802E-02	2.50	5.25	1.80
0.0046231849E-02	5.00	5.25	1.80
0.0041364400E-02	7.50	5.25	1.80
0.0035515555E-02	10.00	5.25	1.80
0.0030053214E-02	12.50	5.25	1.80
0.0023879116E-02	15.00	5.25	1.80
0.0017956930E-02	17.50	5.25	1.80
0.0012424175E-02	20.00	5.25	1.80
0.00061214644E-03	22.50	5.25	1.80
0.000240082516E-03	25.00	5.25	1.80
0.00034428097E-02	0.00	6.00	1.80
0.0033697721E-02	2.50	6.00	1.80
0.0031468561E-02	5.00	6.00	1.80
0.0028155442E-02	7.50	6.00	1.80
0.0024174316E-02	10.00	6.00	1.80
0.0020456275E-02	12.50	6.00	1.80
0.0016253760E-02	15.00	6.00	1.80
0.0012222715E-02	17.50	6.00	1.80
0.00084567441E-02	20.00	6.00	1.80
0.00041666877E-03	22.50	6.00	1.80
0.00016392208E-03	25.00	6.00	1.80
0.00017428625E-02	0.00	6.75	1.80
0.00017058885E-02	2.50	6.75	1.80
0.00015930412E-02	5.00	6.75	1.80
0.00014253203E-02	7.50	6.75	1.80
0.00012237827E-02	10.00	6.75	1.80
0.00010555633E-02	12.50	6.75	1.80
0.000082281840E-03	15.00	6.75	1.80
0.000061875372E-03	17.50	6.75	1.80
0.000042810796E-03	20.00	6.75	1.80
0.000021093132E-03	22.50	6.75	1.80
0.0000082982706E-10	25.00	6.75	1.80
0.0000033203258E-09	0.00	7.50	1.80
0.00000032498866E-09	2.50	7.50	1.80
0.00000050349015E-09	5.00	7.50	1.80

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.27153764	7.50	7.50	1.80
0.23314273	10.00	7.50	1.80
0.19728508	12.50	7.50	1.80
0.15675509	15.00	7.50	1.80
0.11787871	17.50	7.50	1.80
0.08155880	20.00	7.50	1.80
0.04018450	22.50	7.50	1.80
0.01580902	25.00	7.50	1.80
0.10727956	0.	0.	3.60
0.09805751	2.50	0.	3.60
0.08773367	5.00	0.	3.60
0.07532830	7.50	0.	3.60
0.06374271	10.00	0.	3.60
0.05064748	12.50	0.	3.60
0.03805655	15.00	0.	3.60
0.02635161	17.50	0.	3.60
0.01298359	20.00	0.	3.60
0.00510789	22.50	0.	3.60
0.01059587	25.00	0.	3.60
0.01057109	0.	0.75	3.60
0.00968502	2.50	0.75	3.60
0.00866535	5.00	0.75	3.60
0.00744008	7.50	0.75	3.60
0.00629579	10.00	0.75	3.60
0.00500239	12.50	0.75	3.60
0.00376176	15.00	0.75	3.60
0.00260271	17.50	0.75	3.60
0.00128237	20.00	0.75	3.60
0.00050450	22.50	0.75	3.60
0.00010202	25.00	0.75	3.60
0.00998644	0.	1.50	3.60
0.00932582	2.50	1.50	3.60
0.00834396	5.00	1.50	3.60
0.00716414	7.50	1.50	3.60
0.00606229	10.00	1.50	3.60
0.00481666	12.50	1.50	3.60
0.00362246	15.00	1.50	3.60
0.00250018	17.50	1.50	3.60
0.001871	20.00	1.50	3.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLWAY CODE

GROUP 2

FLUX	X	Y	Z
0.12348132E-02	22.50	1.50	3.60
0.48578911E-09	25.00	1.50	3.60
0.95586790E-02	0.50	2.25	3.60
0.93558961E-02	2.50	2.25	3.60
0.87369882E-02	5.00	2.25	3.60
0.78171279E-02	7.50	2.25	3.60
0.67118014E-02	10.00	2.25	3.60
0.56795173E-02	12.50	2.25	3.60
0.45127236E-02	15.00	2.25	3.60
0.33935370E-02	17.50	2.25	3.60
0.23479456E-02	20.00	2.25	3.60
0.11568467E-02	22.50	2.25	3.60
0.45511623E-09	25.00	2.25	3.60
0.86790990E-02	0.50	3.00	3.60
0.84949759E-02	2.50	3.00	3.60
0.79330195E-02	5.00	3.00	3.60
0.70978040E-02	7.50	3.00	3.60
0.60941880E-02	10.00	3.00	3.60
0.51568937E-02	12.50	3.00	3.60
0.40974673E-02	15.00	3.00	3.60
0.30812670E-02	17.50	3.00	3.60
0.21318901E-02	20.00	3.00	3.60
0.10503948E-02	22.50	3.00	3.60
0.41323692E-09	25.00	3.00	3.60
0.75858107E-02	0.50	3.75	3.60
0.74248814E-02	2.50	3.75	3.60
0.69337136E-02	5.00	3.75	3.60
0.62037081E-02	7.50	3.75	3.60
0.53265156E-02	10.00	3.75	3.60
0.45072903E-02	12.50	3.75	3.60
0.35813179E-02	15.00	3.75	3.60
0.26931262E-02	17.50	3.75	3.60
0.18633403E-02	20.00	3.75	3.60
0.91807879E-03	22.50	3.75	3.60
0.36118230E-09	25.00	3.75	3.60
0.63057345E-02	0.50	4.50	3.60
0.61719614E-02	2.50	4.50	3.60
0.57636761E-02	5.00	4.50	3.60
0.51568563E-02	7.50	4.50	3.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLWAY CODE

GROUP 2

FLUX	X	Y	Z
0.44276868E-02	10.00	4.50	3.60
0.37467027E-02	12.50	4.50	3.60
0.29769842E-02	15.00	4.50	3.60
0.22386716E-02	17.50	4.50	3.60
0.15489088E-02	20.00	4.50	3.60
0.76315655E-03	22.50	4.50	3.60
0.30023419E-09	25.00	4.50	3.60
0.48703905E-02	0.00	5.00	3.60
0.47670676E-02	2.50	5.00	3.60
0.44517182E-02	5.00	5.00	3.60
0.39830258E-02	7.50	5.00	3.60
0.34198338E-02	10.00	5.00	3.60
0.28893858E-02	12.50	5.00	3.60
0.22993477E-02	15.00	5.00	3.60
0.17290936E-02	17.50	5.00	3.60
0.11963382E-02	20.00	5.00	3.60
0.58944291E-03	22.50	5.00	3.60
0.23189332E-09	25.00	5.00	3.60
0.33151212E-02	0.00	6.00	3.60
0.32447924E-02	2.50	6.00	3.60
0.30301442E-02	5.00	6.00	3.60
0.27111200E-02	7.50	6.00	3.60
0.23277729E-02	10.00	6.00	3.60
0.19697583E-02	12.50	6.00	3.60
0.15650934E-02	15.00	6.00	3.60
0.11769394E-02	17.50	6.00	3.60
0.81430966E-03	20.00	6.00	3.60
0.40121518E-03	22.50	6.00	3.60
0.15784247E-09	25.00	6.00	3.60
0.16782225E-02	0.00	6.75	3.60
0.16426197E-02	2.50	6.75	3.60
0.15339578E-02	5.00	6.75	3.60
0.13724574E-02	7.50	6.75	3.60
0.11783945E-02	10.00	6.75	3.60
0.99715590E-03	12.50	6.75	3.60
0.79230136E-03	15.00	6.75	3.60
0.59580512E-03	17.50	6.75	3.60
0.41223010E-03	20.00	6.75	3.60
0.20310821E-03	22.50	6.75	3.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.79905009E-10	25.00	6.75	3.60
0.31971800E-09	0.50	7.50	3.60
0.31293534E-09	2.50	7.50	3.60
0.29223415E-09	5.00	7.50	3.60
0.26146673E-09	7.50	7.50	3.60
0.22449584E-09	10.00	7.50	3.60
0.18996808E-09	12.50	7.50	3.60
0.150094125E-09	15.00	7.50	3.60
0.11350678E-09	17.50	7.50	3.60
0.078533921E-10	20.00	7.50	3.60
0.038694126E-10	22.50	7.50	3.60
0.15222695E-16	25.00	7.50	3.60
0.10050059E-01	0.50	0.75	5.40
0.98373710E-02	2.50	0.75	5.40
0.91566132E-02	5.00	0.75	5.40
0.82194148E-02	7.50	0.75	5.40
0.70572054E-02	10.00	0.75	5.40
0.59717978E-02	12.50	0.75	5.40
0.47449584E-02	15.00	0.75	5.40
0.35681759E-02	17.50	0.75	5.40
0.24687762E-02	20.00	0.75	5.40
0.12163806E-02	22.50	0.75	5.40
0.47853752E-09	25.00	0.75	5.40
0.99268505E-02	0.50	0.75	5.40
0.97162569E-02	2.50	0.75	5.40
0.90735108E-02	5.00	0.75	5.40
0.81182200E-02	7.50	0.75	5.40
0.69703195E-02	10.00	0.75	5.40
0.58982750E-02	12.50	0.75	5.40
0.46865400E-02	15.00	0.75	5.40
0.35242456E-02	17.50	0.75	5.40
0.24383815E-02	20.00	0.75	5.40
0.12014049E-02	22.50	0.75	5.40
0.47264593E-09	25.00	0.75	5.40
0.95586790E-02	0.50	1.50	5.40
0.93558961E-02	2.50	1.50	5.40
0.87369882E-02	5.00	1.50	5.40
0.78171279E-02	7.50	1.50	5.40
0.67118014E-02	10.00	1.50	5.40



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.56795172E-02	12.50	1.50	5.40
0.45127235E-02	15.00	1.50	5.40
0.33935369E-02	17.50	1.50	5.40
0.23479456E-02	20.00	1.50	5.40
0.11568467E-02	22.50	1.50	5.40
0.45511623E-09	25.00	1.50	5.40
0.89551412E-02	0.	2.25	5.40
0.87651621E-02	2.50	2.25	5.40
0.81853323E-02	5.00	2.25	5.40
0.73235524E-02	7.50	2.25	5.40
0.62880161E-02	10.00	2.25	5.40
0.53209109E-02	12.50	2.25	5.40
0.42277888E-02	15.00	2.25	5.40
0.31792679E-02	17.50	2.25	5.40
0.21996957E-02	20.00	2.25	5.40
0.10838030E-02	22.50	2.25	5.40
0.42638008E-09	25.00	2.25	5.40
0.81310980E-02	0.	3.00	5.40
0.79586006E-02	2.50	3.00	5.40
0.74321266E-02	5.00	3.00	5.40
0.66496464E-02	7.50	3.00	5.40
0.57093991E-02	10.00	3.00	5.40
0.48312859E-02	12.50	3.00	5.40
0.38367521E-02	15.00	3.00	5.40
0.28867149E-02	17.50	3.00	5.40
0.19972818E-02	20.00	3.00	5.40
0.98407258E-03	22.50	3.00	5.40
0.38714501E-09	25.00	3.00	5.40
0.71068405E-02	0.	3.75	5.40
0.69560722E-02	2.50	3.75	5.40
0.64959168E-02	5.00	3.75	5.40
0.58120041E-02	7.50	3.75	5.40
0.49901979E-02	10.00	3.75	5.40
0.42226987E-02	12.50	3.75	5.40
0.33551924E-02	15.00	3.75	5.40
0.25230814E-02	17.50	3.75	5.40
0.17456884E-02	20.00	3.75	5.40
0.86011101E-03	22.50	3.75	5.40
0.33837715E-09	25.00	3.75	5.40

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.59075885E-02	0.	4.50	5.40
0.57822619E-02	2.50	4.50	5.40
0.53997558E-02	5.00	4.50	5.40
0.48312509E-02	7.50	4.50	5.40
0.41481213E-02	10.00	4.50	5.40
0.35101347E-02	12.50	4.50	5.40
0.27890166E-02	15.00	4.50	5.40
0.20973212E-02	17.50	4.50	5.40
0.14511102E-02	20.00	4.50	5.40
0.71497063E-03	22.50	4.50	5.40
0.28127731E-09	25.00	4.50	5.40
0.45628728E-02	0.	5.25	5.40
0.44660735E-02	2.50	5.25	5.40
0.41706353E-02	5.00	5.25	5.40
0.37315366E-02	7.50	5.25	5.40
0.32039045E-02	10.00	5.25	5.40
0.27111396E-02	12.50	5.25	5.40
0.21541661E-02	15.00	5.25	5.40
0.16199180E-02	17.50	5.25	5.40
0.11208010E-02	20.00	5.25	5.40
0.55222528E-03	22.50	5.25	5.40
0.21725152E-09	25.00	5.25	5.40
0.31058035E-02	0.	6.00	5.40
0.30399153E-02	2.50	6.00	5.40
0.28388199E-02	5.00	6.00	5.40
0.25399391E-02	7.50	6.00	5.40
0.21807966E-02	10.00	6.00	5.40
0.18453872E-02	12.50	6.00	5.40
0.14662729E-02	15.00	6.00	5.40
0.11026271E-02	17.50	6.00	5.40
0.76289391E-03	20.00	6.00	5.40
0.37588234E-03	22.50	6.00	5.40
0.14787626E-09	25.00	6.00	5.40
0.15722590E-02	0.	6.75	5.40
0.15369042E-02	2.50	6.75	5.40
0.14371032E-02	5.00	6.75	5.40
0.12858000E-02	7.50	6.75	5.40
0.11039903E-02	10.00	6.75	5.40
0.93419520E-03	12.50	6.75	5.40

LOOSE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.74227521E-03	15.00	6.75	5.40
0.55818580E-03	17.50	6.75	5.40
0.38620178E-03	20.00	6.75	5.40
0.19028389E-03	22.50	6.75	5.40
0.74859782E-10	25.00	6.75	5.40
0.29953092E-09	0.	7.50	5.40
0.29317650E-09	2.50	7.50	5.40
0.27378241E-09	5.00	7.50	5.40
0.24495765E-09	7.50	7.50	5.40
0.21132111E-09	10.00	7.50	5.40
0.17797344E-09	12.50	7.50	5.40
0.14141078E-09	15.00	7.50	5.40
0.10633992E-09	17.50	7.50	5.40
0.73575264E-10	20.00	7.50	5.40
0.36250968E-10	22.50	7.50	5.40
0.14261530E-16	25.00	7.50	5.40
0.91257446E-02	0.	0.	7.20
0.89321462E-02	2.50	0.	7.20
0.83412702E-02	5.00	0.	7.20
0.74630726E-02	7.50	0.	7.20
0.64078085E-02	10.00	0.	7.20
0.54222789E-02	12.50	0.	7.20
0.43083319E-02	15.00	0.	7.20
0.32398359E-02	17.50	0.	7.20
0.22416019E-02	20.00	0.	7.20
0.11044504E-02	22.50	0.	7.20
0.43450300E-09	25.00	0.	7.20
0.90133915E-02	0.	0.75	7.20
0.88221766E-02	2.50	0.75	7.20
0.82385754E-02	5.00	0.75	7.20
0.73711897E-02	7.50	0.75	7.20
0.63289177E-02	10.00	0.75	7.20
0.53555217E-02	12.50	0.75	7.20
0.42552892E-02	15.00	0.75	7.20
0.31999482E-02	17.50	0.75	7.20
0.22140040E-02	20.00	0.75	7.20
0.10908528E-02	22.50	0.75	7.20
0.42915355E-09	25.00	0.75	7.20
0.86790989E-02	0.	1.50	7.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.84949758E-02	2.50	1.50	7.20
0.793330194E-02	5.00	1.50	7.20
0.70978043E-02	7.50	1.50	7.20
0.60941880E-02	10.00	1.50	7.20
0.51568936E-02	12.50	1.50	7.20
0.40974673E-02	15.00	1.50	7.20
0.30812673E-02	17.50	1.50	7.20
0.21318901E-02	20.00	1.50	7.20
0.10503948E-02	22.50	1.50	7.20
0.41323691E-09	25.00	1.50	7.20
0.81310980E-02	0.	2.25	7.20
0.79586005E-02	2.50	2.25	7.20
0.74321266E-02	5.00	2.25	7.20
0.66496465E-02	7.50	2.25	7.20
0.57093992E-02	10.00	2.25	7.20
0.48312860E-02	12.50	2.25	7.20
0.38387521E-02	15.00	2.25	7.20
0.28867149E-02	17.50	2.25	7.20
0.19972818E-02	20.00	2.25	7.20
0.98407260E-03	22.50	2.25	7.20
0.38714501E-09	25.00	2.25	7.20
0.73828828E-02	0.	3.00	7.20
0.72262582E-02	2.50	3.00	7.20
0.67482297E-02	5.00	3.00	7.20
0.60377526E-02	7.50	3.00	7.20
0.51840259E-02	10.00	3.00	7.20
0.43867158E-02	12.50	3.00	7.20
0.34855139E-02	15.00	3.00	7.20
0.26210824E-02	17.50	3.00	7.20
0.18134940E-02	20.00	3.00	7.20
0.89351926E-03	22.50	3.00	7.20
0.35152031E-09	25.00	3.00	7.20
0.64528761E-02	0.	3.75	7.20
0.63159814E-02	2.50	3.75	7.20
0.58981691E-02	5.00	3.75	7.20
0.52771894E-02	7.50	3.75	7.20
0.45310049E-02	10.00	3.75	7.20
0.38341303E-02	12.50	3.75	7.20
0.30464509E-02	15.00	3.75	7.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.22909100E-02	17.50	3.75	7.20
0.15850519E-02	20.00	3.75	7.20
0.78096446E-03	22.50	3.75	7.20
0.30724002E-09	25.00	3.75	7.20
0.53639781E-02	0.	4.50	7.20
0.52501839E-02	2.50	4.50	7.20
0.49028757E-02	5.00	4.50	7.20
0.43866840E-02	7.50	4.50	7.20
0.37664153E-02	10.00	4.50	7.20
0.31871357E-02	12.50	4.50	7.20
0.25323741E-02	15.00	4.50	7.20
0.19043278E-02	17.50	4.50	7.20
0.13175806E-02	20.00	4.50	7.20
0.64917974E-03	22.50	4.50	7.20
0.25539446E-09	25.00	4.50	7.20
0.41430017E-02	0.	5.25	7.20
0.40551099E-02	2.50	5.25	7.20
0.37868579E-02	5.00	5.25	7.20
0.33881643E-02	7.50	5.25	7.20
0.29090843E-02	10.00	5.25	7.20
0.24616633E-02	12.50	5.25	7.20
0.19559419E-02	15.00	5.25	7.20
0.14708548E-02	17.50	5.25	7.20
0.10176660E-02	20.00	5.25	7.20
0.50141009E-03	22.50	5.25	7.20
0.19726025E-09	25.00	5.25	7.20
0.28200106E-02	0.	6.00	7.20
0.27601853E-02	2.50	6.00	7.20
0.25775946E-02	5.00	6.00	7.20
0.23062164E-02	7.50	6.00	7.20
0.19801219E-02	10.00	6.00	7.20
0.16755765E-02	12.50	6.00	7.20
0.13313480E-02	15.00	6.00	7.20
0.10011644E-02	17.50	6.00	7.20
0.69269317E-03	20.00	6.00	7.20
0.34129401E-03	22.50	6.00	7.20
0.13426883E-09	25.00	6.00	7.20
0.14275813E-02	0.	6.75	7.20
0.13972958E-02	2.50	6.75	7.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.13048624E-02	5.00	6.75	7.20
0.11674820E-02	7.50	6.75	7.20
0.10024022E-02	10.00	6.75	7.20
0.84823149E-03	12.50	6.75	7.20
0.67397178E-03	15.00	6.75	7.20
0.50682211E-03	17.50	6.75	7.20
0.35066387E-03	20.00	6.75	7.20
0.17277417E-03	22.50	6.75	7.20
0.67971259E-10	25.00	6.75	7.20
0.27196838E-09	0.	7.50	7.20
0.26619869E-09	2.50	7.50	7.20
0.24858923E-09	5.00	7.50	7.20
0.22241689E-09	7.50	7.50	7.20
0.19096757E-09	10.00	7.50	7.20
0.16159650E-09	12.50	7.50	7.20
0.12839829E-09	15.00	7.50	7.20
0.96554635E-10	17.50	7.50	7.20
0.66804942E-10	20.00	7.50	7.20
0.32915190E-10	22.50	7.50	7.20
0.12949198E-16	25.00	7.50	7.20
0.79761934E-02	0.	0.	9.00
0.78069824E-02	2.50	0.	9.00
0.72905380E-02	5.00	0.	9.00
0.65229649E-02	7.50	0.	9.00
0.56006301E-02	10.00	0.	9.00
0.47392457E-02	12.50	0.	9.00
0.37656204E-02	15.00	0.	9.00
0.28317205E-02	17.50	0.	9.00
0.19592319E-02	20.00	0.	9.00
0.96532520E-03	22.50	0.	9.00
0.37976955E-09	25.00	0.	9.00
0.78779935E-02	0.	0.75	9.00
0.77108656E-02	2.50	0.75	9.00
0.72007792E-02	5.00	0.75	9.00
0.64426563E-02	7.50	0.75	9.00
0.55316772E-02	10.00	0.75	9.00
0.46808977E-02	12.50	0.75	9.00
0.37192594E-02	15.00	0.75	9.00
0.27968573E-02	17.50	0.75	9.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
C.19351105E-02	20.00	0.75	9.00
G.95344042E-03	22.50	0.75	9.00
O.37509397E-09	25.00	0.75	9.00
O.75858110E-02	0.50	1.50	9.00
C.74248816E-02	2.50	1.50	9.00
O.69337136E-02	5.00	1.50	9.00
O.62337082E-02	7.50	1.50	9.00
O.53265157E-02	10.00	1.50	9.00
O.45072904E-02	12.50	1.50	9.00
O.35813179E-02	15.00	1.50	9.00
O.26931263E-02	17.50	1.50	9.00
O.18633403E-02	20.00	1.50	9.00
O.91807880E-03	22.50	1.50	9.00
O.36118231E-09	25.00	1.50	9.00
O.71068408E-02	0.50	2.25	9.00
C.69560724E-02	2.50	2.25	9.00
O.64959170E-02	5.00	2.25	9.00
O.58120042E-02	7.50	2.25	9.00
G.49901979E-02	10.00	2.25	9.00
O.42226989E-02	12.50	2.25	9.00
O.33551924E-02	15.00	2.25	9.00
O.25230815E-02	17.50	2.25	9.00
C.17456885E-02	20.00	2.25	9.00
G.86011105E-03	22.50	2.25	9.00
O.33837716E-09	25.00	2.25	9.00
O.64528764E-02	0.50	3.00	9.00
O.63159817E-02	2.50	3.00	9.00
O.58981692E-02	5.00	3.00	9.00
C.52771895E-02	7.50	3.00	9.00
O.45310950E-02	10.00	3.00	9.00
O.38341305E-02	12.50	3.00	9.00
O.30464518E-02	15.00	3.00	9.00
O.22909100E-02	17.50	3.00	9.00
O.15850520E-02	20.00	3.00	9.00
G.78996449E-03	22.50	3.00	9.00
O.30724003E-09	25.00	3.00	9.00
O.56400207E-02	0.50	3.75	9.00
O.55203702E-02	2.50	3.75	9.00
G.51551889E-02	5.00	3.75	9.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.46124326E-02	7.50	3.75	9.00
0.39602435E-02	10.00	3.75	9.00
0.33511528E-02	12.50	3.75	9.00
0.26626958E-02	15.00	3.75	9.00
0.20023287E-02	17.50	3.75	9.00
0.13853862E-02	20.00	3.75	9.00
0.68258798E-03	22.50	3.75	9.00
0.26853763E-09	25.00	3.75	9.00
0.46882899E-02	0.	4.50	9.00
0.45888291E-02	2.50	4.50	9.00
0.42852706E-02	5.00	4.50	9.00
0.38341027E-02	7.50	4.50	9.00
0.32919678E-02	10.00	4.50	9.00
0.27856588E-02	12.50	4.50	9.00
0.22133762E-02	15.00	4.50	9.00
0.16644435E-02	17.50	4.50	9.00
0.11516076E-02	20.00	4.50	9.00
0.56740392E-03	22.50	4.50	9.00
0.22322295E-09	25.00	4.50	9.00
0.36211164E-02	0.	5.25	9.00
0.35442962E-02	2.50	5.25	9.00
0.33098351E-02	5.00	5.25	9.00
0.29613643E-02	7.50	5.25	9.00
0.25426331E-02	10.00	5.25	9.00
0.21515726E-02	12.50	5.25	9.00
0.17095561E-02	15.00	5.25	9.00
0.12855743E-02	17.50	5.25	9.00
0.88947279E-03	20.00	5.25	9.00
0.43824850E-03	22.50	5.25	9.00
0.17241178E-09	25.00	5.25	9.00
0.24647796E-02	0.	6.00	9.00
0.24124905E-02	2.50	6.00	9.00
0.22529004E-02	5.00	6.00	9.00
0.20157071E-02	7.50	6.00	9.00
0.17306901E-02	10.00	6.00	9.00
0.14645077E-02	12.50	6.00	9.00
0.11636406E-02	15.00	6.00	9.00
0.87504987E-03	17.50	6.00	9.00
0.60543604E-03	20.00	6.00	9.00



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.29830192E-03	22.50	6.00	9.00
0.11735526E-09	25.00	6.00	9.00
0.12477518E-02	0.	6.75	9.00
0.12212814E-02	2.50	6.75	9.00
0.11404916E-02	5.00	6.75	9.00
0.10204167E-02	7.50	6.75	9.00
0.87613178E-03	10.00	6.75	9.00
0.74138151E-03	12.50	6.75	9.00
0.58907295E-03	15.00	6.75	9.00
0.44297878E-03	17.50	6.75	9.00
0.30649147E-03	20.00	6.75	9.00
0.15101016E-03	22.50	6.75	9.00
0.59409062E-10	25.00	6.75	9.00
0.23770908E-09	0.	7.50	9.00
0.23266620E-09	2.50	7.50	9.00
0.21727496E-09	5.00	7.50	9.00
0.19439950E-09	7.50	7.50	9.00
0.16691178E-09	10.00	7.50	9.00
0.14124052E-09	12.50	7.50	9.00
0.11222423E-09	15.00	7.50	9.00
0.84391848E-10	17.50	7.50	9.00
0.58389664E-10	20.00	7.50	9.00
0.28768933E-10	22.50	7.50	9.00
0.11318015E-16	25.00	7.50	9.00
0.66302420E-02	0.	0.	10.80
0.64895846E-02	2.50	0.	10.80
0.60602881E-02	5.00	0.	10.80
0.54222398E-02	7.50	0.	10.80
0.46555455E-02	10.00	0.	10.80
0.39395164E-02	12.50	0.	10.80
0.31301866E-02	15.00	0.	10.80
0.23538787E-02	17.50	0.	10.80
0.16286192E-02	20.00	0.	10.80
0.80243032E-03	22.50	0.	10.80
0.31568492E-09	25.00	0.	10.80
0.65486127E-02	0.	0.75	10.80
0.64096870E-02	2.50	0.75	10.80
0.59856758E-02	5.00	0.75	10.80
0.53554831E-02	7.50	0.75	10.80

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.45982280E-02	10.00	0.75	10.80
0.38910145E-02	12.50	0.75	10.80
0.30916489E-02	15.00	0.75	10.80
0.23248985E-02	17.50	0.75	10.80
0.16085681E-02	20.00	0.75	10.80
0.79255106E-03	22.50	0.75	10.80
0.31179832E-09	25.00	0.75	10.80
0.63057349E-02	0.	1.50	10.80
0.61719617E-02	2.50	1.50	10.80
0.57636762E-02	5.00	1.50	10.80
0.51568566E-02	7.50	1.50	10.80
0.44276870E-02	10.00	1.50	10.80
0.37467027E-02	12.50	1.50	10.80
0.29769844E-02	15.00	1.50	10.80
0.22386716E-02	17.50	1.50	10.80
0.15489088E-02	20.00	1.50	10.80
0.76315657E-03	22.50	1.50	10.80
0.30023421E-09	25.00	1.50	10.80
0.59075888E-02	0.	2.25	10.80
0.57822621E-02	2.50	2.25	10.80
0.53997562E-02	5.00	2.25	10.80
0.48312511E-02	7.50	2.25	10.80
0.41481215E-02	10.00	2.25	10.80
0.35101350E-02	12.50	2.25	10.80
0.27890167E-02	15.00	2.25	10.80
0.20973212E-02	17.50	2.25	10.80
0.14511103E-02	20.00	2.25	10.80
0.71497066E-03	22.50	2.25	10.80
0.28127731E-09	25.00	2.25	10.80
0.53639784E-02	0.	3.00	10.80
0.52501842E-02	2.50	3.00	10.80
0.49028760E-02	5.00	3.00	10.80
0.43866842E-02	7.50	3.00	10.80
0.37664156E-02	10.00	3.00	10.80
0.31871358E-02	12.50	3.00	10.80
0.25323742E-02	15.00	3.00	10.80
0.19043279E-02	17.50	3.00	10.80
0.13175806E-02	20.00	3.00	10.80
0.64917976E-03	22.50	3.00	10.80

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.25539447E-09	25.00	3.00	10.80
0.46882891E-02	0.	3.75	10.80
0.45888292E-02	2.50	3.75	10.80
0.42852707E-02	5.00	3.75	10.80
0.38341027E-02	7.50	3.75	10.80
0.32919679E-02	10.00	3.75	10.80
0.27856588E-02	12.50	3.75	10.80
0.22133762E-02	15.00	3.75	10.80
0.16644436E-02	17.50	3.75	10.80
0.11516076E-02	20.00	3.75	10.80
0.56740393E-03	22.50	3.75	10.80
0.22322296E-09	25.00	3.75	10.80
0.38971585E-02	0.	4.50	10.80
0.38144822E-02	2.50	4.50	10.80
0.35621480E-02	5.00	4.50	10.80
0.31871127E-02	7.50	4.50	10.80
0.27364611E-02	10.00	4.50	10.80
0.23155896E-02	12.50	4.50	10.80
0.18398775E-02	15.00	4.50	10.80
0.13835752E-02	17.50	4.50	10.80
0.95727838E-03	20.00	4.50	10.80
0.47165672E-03	22.50	4.50	10.80
0.18555494E-09	25.00	4.50	10.80
0.30100671E-02	0.	5.25	10.80
0.29462100E-02	2.50	5.25	10.80
0.27513134E-02	5.00	5.25	10.80
0.24616456E-02	7.50	5.25	10.80
0.21135736E-02	10.00	5.25	10.80
0.17885032E-02	12.50	5.25	10.80
0.14210751E-02	15.00	5.25	10.80
0.10686386E-02	17.50	5.25	10.80
0.73937770E-03	20.00	5.25	10.80
0.36429577E-03	22.50	5.25	10.80
0.14331796E-09	25.00	5.25	10.80
0.20488577E-02	0.	6.00	10.80
0.20053921E-02	2.50	6.00	10.80
0.18727322E-02	5.00	6.00	10.80
0.16755644E-02	7.50	6.00	10.80
0.14386428E-02	10.00	6.00	10.80

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.12173776E-02	12.50	6.00	10.80
0.96728100E-03	15.00	6.00	10.80
0.72738861E-03	17.50	6.00	10.80
0.50327107E-03	20.00	6.00	10.80
0.24796463E-03	22.50	6.00	10.80
0.97552022E-10	25.00	6.00	10.80
0.10371985E-02	0.	6.75	10.80
0.10151949E-02	2.50	6.75	10.80
0.94803815E-03	5.00	6.75	10.80
0.84822539E-03	7.50	6.75	10.80
0.72828794E-03	10.00	6.75	10.80
0.61627629E-03	12.50	6.75	10.80
0.48966917E-03	15.00	6.75	10.80
0.36822784E-03	17.50	6.75	10.80
0.25477223E-03	20.00	6.75	10.80
0.12552778E-03	22.50	6.75	10.80
0.49384014E-10	25.00	6.75	10.80
0.19759661E-09	0.	7.50	10.80
0.19340469E-09	2.50	7.50	10.80
0.18061066E-09	5.00	7.50	10.80
0.16159534E-09	7.50	7.50	10.80
0.13874607E-09	10.00	7.50	10.80
0.11740673E-09	12.50	7.50	10.80
0.93286831E-10	15.00	7.50	10.80
0.70151052E-10	17.50	7.50	10.80
0.48536635E-10	20.00	7.50	10.80
0.23914286E-10	22.50	7.50	10.80
0.94081438E-17	25.00	7.50	10.80
0.51210316E-02	0.	0.	12.60
0.50123914E-02	2.50	0.	12.60
0.46808136E-02	5.00	0.	12.60
0.41880012E-02	7.50	0.	12.60
0.35958260E-02	10.00	0.	12.60
0.30427831E-02	12.50	0.	12.60
0.24176772E-02	15.00	0.	12.60
0.18180765E-02	17.50	0.	12.60
0.12579043E-02	20.00	0.	12.60
0.61977693E-03	22.50	0.	12.60
0.24382707E-09	25.00	0.	12.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.50579833E-02	0.	0.75	12.60
0.49506805E-02	2.50	0.75	12.60
0.46231849E-02	5.00	0.75	12.60
0.41364399E-02	7.50	0.75	12.60
0.35515555E-02	10.00	0.75	12.60
0.30053214E-02	12.50	0.75	12.60
0.23879116E-02	15.00	0.75	12.60
0.17956930E-02	17.50	0.75	12.60
0.12424175E-02	20.00	0.75	12.60
0.61214644E-03	22.50	0.75	12.60
0.24082515E-09	25.00	0.75	12.60
0.48703905E-02	0.	1.50	12.60
0.47670676E-02	2.50	1.50	12.60
0.44517182E-02	5.00	1.50	12.60
0.39830258E-02	7.50	1.50	12.60
0.34198338E-02	10.00	1.50	12.60
0.28938587E-02	12.50	1.50	12.60
0.22993477E-02	15.00	1.50	12.60
0.17290935E-02	17.50	1.50	12.60
0.11963382E-02	20.00	1.50	12.60
0.58944289E-03	22.50	1.50	12.60
0.23189332E-09	25.00	1.50	12.60
0.45628727E-02	0.	2.25	12.60
0.44660734E-02	2.50	2.25	12.60
0.41706354E-02	5.00	2.25	12.60
0.37315366E-02	7.50	2.25	12.60
0.32039045E-02	10.00	2.25	12.60
0.27111397E-02	12.50	2.25	12.60
0.21541661E-02	15.00	2.25	12.60
0.16199180E-02	17.50	2.25	12.60
0.11208010E-02	20.00	2.25	12.60
0.55222528E-03	22.50	2.25	12.60
0.21725152E-09	25.00	2.25	12.60
0.41430017E-02	0.	3.00	12.60
0.40551098E-02	2.50	3.00	12.60
0.37868579E-02	5.00	3.00	12.60
0.33881643E-02	7.50	3.00	12.60
0.29090843E-02	10.00	3.00	12.60
0.24616633E-02	12.50	3.00	12.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.19559419E-02	15.00	3.00	12.60
0.14708549E-02	17.50	3.00	12.60
0.10176660E-02	20.00	3.00	12.60
0.50141008E-03	22.50	3.00	12.60
0.19726025E-09	25.00	3.00	12.60
0.36211164E-02	0.	3.75	12.60
0.35442960E-02	2.50	3.75	12.60
0.33098350E-02	5.00	3.75	12.60
0.29613642E-02	7.50	3.75	12.60
0.25426330E-02	10.00	3.75	12.60
0.21515726E-02	12.50	3.75	12.60
0.17095556E-02	15.00	3.75	12.60
0.12855742E-02	17.50	3.75	12.60
0.88947275E-03	20.00	3.75	12.60
0.43824848E-03	22.50	3.75	12.60
0.17241178E-09	25.00	3.75	12.60
0.30100670E-02	0.	4.50	12.60
0.29462098E-02	2.50	4.50	12.60
0.27513132E-02	5.00	4.50	12.60
0.24616455E-02	7.50	4.50	12.60
0.21135734E-02	10.00	4.50	12.60
0.17885031E-02	12.50	4.50	12.60
0.14210750E-02	15.00	4.50	12.60
0.10686386E-02	17.50	4.50	12.60
0.73937767E-03	20.00	4.50	12.60
0.56429576E-03	22.50	4.50	12.60
0.14331796E-09	25.00	4.50	12.60
0.23248999E-02	0.	5.25	12.60
0.22755782E-02	2.50	5.25	12.60
0.21250451E-02	5.00	5.25	12.60
0.19013130E-02	7.50	5.25	12.60
0.16324710E-02	10.00	5.25	12.60
0.13813947E-02	12.50	5.25	12.60
0.10976025E-02	15.00	5.25	12.60
0.82538956E-03	17.50	5.25	12.60
0.57107668E-03	20.00	5.25	12.60
0.28137286E-03	22.50	5.25	12.60
0.11069518E-09	25.00	5.25	12.60
0.15824860E-02	0.	6.00	12.60

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.15489142E-02	2.50	6.00	12.60
0.14464511E-02	5.00	6.00	12.60
0.12941637E-02	7.50	6.00	12.60
0.11111715E-02	10.00	6.00	12.60
0.94027182E-03	12.50	6.00	12.60
0.74710344E-03	15.00	6.00	12.60
0.56181661E-03	17.50	6.00	12.60
0.38871388E-03	20.00	6.00	12.60
0.19152163E-03	22.50	6.00	12.60
0.75346717E-10	25.00	6.00	12.60
0.80110605E-03	0.	6.75	12.60
0.78411095E-03	2.50	6.75	12.60
0.73224073E-03	5.00	6.75	12.60
0.65514790E-03	7.50	6.75	12.60
0.56251123E-03	10.00	6.75	12.60
0.47599626E-03	12.50	6.75	12.60
0.37820812E-03	15.00	6.75	12.60
0.28440993E-03	17.50	6.75	12.60
0.19677965E-03	20.00	6.75	12.60
0.96954495E-04	22.50	6.75	12.60
0.38142967E-10	25.00	6.75	12.60
0.15261863E-09	0.	7.50	12.60
0.14938099E-09	2.50	7.50	12.60
0.13949911E-09	5.00	7.50	12.60
0.12481216E-09	7.50	7.50	12.60
0.10716397E-09	10.00	7.50	12.60
0.90682004E-10	12.50	7.50	12.60
0.72052395E-10	15.00	7.50	12.60
0.54182904E-10	17.50	7.50	12.60
0.37488471E-10	20.00	7.50	12.60
0.18470792E-10	22.50	7.50	12.60
0.72666129E-17	25.00	7.50	12.60
0.34857246E-02	0.	0.	14.40
0.34117766E-02	2.50	0.	14.40
0.31860820E-02	5.00	0.	14.40
0.28506403E-02	7.50	0.	14.40
0.24475653E-02	10.00	0.	14.40
0.20711264E-02	12.50	0.	14.40
0.16456366E-02	15.00	0.	14.40

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.12375072E-02	17.50	0.	14.40
0.85621582E-03	20.00	0.	14.40
0.42186259E-03	22.50	0.	14.40
0.16596539E-09	25.00	0.	14.40
0.34428096E-02	0.	0.75	14.40
0.33697721E-02	2.50	0.75	14.40
0.31468561E-02	5.00	0.75	14.40
0.28155442E-02	7.50	0.75	14.40
0.24174317E-02	10.00	0.75	14.40
0.20456274E-02	12.50	0.75	14.40
0.16253760E-02	15.00	0.75	14.40
0.12222715E-02	17.50	0.75	14.40
0.84567440E-03	20.00	0.75	14.40
0.41666877E-03	22.50	0.75	14.40
0.16392208E-09	25.00	0.75	14.40
0.33151212E-02	0.	1.50	14.40
0.32447924E-02	2.50	1.50	14.40
0.30301442E-02	5.00	1.50	14.40
0.27111200E-02	7.50	1.50	14.40
0.23277729E-02	10.00	1.50	14.40
0.19697582E-02	12.50	1.50	14.40
0.15650934E-02	15.00	1.50	14.40
0.11769394E-02	17.50	1.50	14.40
0.81430963E-03	20.00	1.50	14.40
0.40121518E-03	22.50	1.50	14.40
0.15784246E-09	25.00	1.50	14.40
0.31058034E-02	0.	2.25	14.40
0.30399153E-02	2.50	2.25	14.40
0.28388200E-02	5.00	2.25	14.40
0.25399391E-02	7.50	2.25	14.40
0.21807966E-02	10.00	2.25	14.40
0.18453872E-02	12.50	2.25	14.40
0.14662729E-02	15.00	2.25	14.40
0.11026271E-02	17.50	2.25	14.40
0.76289390E-03	20.00	2.25	14.40
0.37588234E-03	22.50	2.25	14.40
0.14787625E-09	25.00	2.25	14.40
0.28200106E-02	0.	3.00	14.40
0.27601853E-02	2.50	3.00	14.40



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.25775946	5.00	3.00	14.40
0.23062164	7.50	3.00	14.40
0.19801219	10.00	3.00	14.40
0.16755765	12.50	3.00	14.40
0.13313480	15.00	3.00	14.40
0.10011644	17.50	3.00	14.40
0.69269317	20.00	3.00	14.40
0.34129401	22.50	3.00	14.40
0.13426882	25.00	3.00	14.40
0.24647795	0.	3.75	14.40
0.24124904	2.50	3.75	14.40
0.22529002	5.00	3.75	14.40
0.20157070	7.50	3.75	14.40
0.17306900	10.00	3.75	14.40
0.14645076	12.50	3.75	14.40
0.11636408	15.00	3.75	14.40
0.08750498	17.50	3.75	14.40
0.60543603	20.00	3.75	14.40
0.29830191	22.50	3.75	14.40
0.11735526	25.00	3.75	14.40
0.20488575	0.	4.50	14.40
0.20053920	2.50	4.50	14.40
0.18727321	5.00	4.50	14.40
0.16755643	7.50	4.50	14.40
0.14386427	10.00	4.50	14.40
0.12173776	12.50	4.50	14.40
0.96728094	15.00	4.50	14.40
0.72738858	17.50	4.50	14.40
0.50327103	20.00	4.50	14.40
0.24796461	22.50	4.50	14.40
0.97552016	25.00	4.50	14.40
0.15824860	0.	5.25	14.40
0.15489142	2.50	5.25	14.40
0.14464511	5.00	5.25	14.40
0.12941637	7.50	5.25	14.40
0.11111715	10.00	5.25	14.40
0.94027182	12.50	5.25	14.40
0.74710344	15.00	5.25	14.40
0.56181661	17.50	5.25	14.40

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.38871388E-03	20.00	5.25	14.40
0.19152163E-03	22.50	5.25	14.40
0.75346717E-10	25.00	5.25	14.40
0.10771482E-02	0.	6.00	14.40
0.10542971E-02	2.50	6.00	14.40
0.98455364E-03	5.00	6.00	14.40
0.88089642E-03	7.50	6.00	14.40
0.75633936E-03	10.00	6.00	14.40
0.64001334E-03	12.50	6.00	14.40
0.50852973E-03	15.00	6.00	14.40
0.38241085E-03	17.50	6.00	14.40
0.26458527E-03	20.00	6.00	14.40
0.13036273E-03	22.50	6.00	14.40
0.51286134E-10	25.00	6.00	14.40
0.54528759E-03	0.	6.75	14.40
0.53371957E-03	2.50	6.75	14.40
0.49841315E-03	5.00	6.75	14.40
0.44593851E-03	7.50	6.75	14.40
0.38288365E-03	10.00	6.75	14.40
0.32399563E-03	12.50	6.75	14.40
0.25743433E-03	15.00	6.75	14.40
0.19358884E-03	17.50	6.75	14.40
0.13394169E-03	20.00	6.75	14.40
0.65993864E-04	22.50	6.75	14.40
0.25962713E-10	25.00	6.75	14.40
0.10388269E-09	0.	7.50	14.40
0.10167886E-09	2.50	7.50	14.40
0.94952648E-10	5.00	7.50	14.40
0.84955701E-10	7.50	7.50	14.40
0.72943130E-10	10.00	7.50	14.40
0.61724377E-10	12.50	7.50	14.40
0.49043792E-10	15.00	7.50	14.40
0.36880591E-10	17.50	7.50	14.40
0.25517220E-10	20.00	7.50	14.40
0.12572485E-10	22.50	7.50	14.40
0.49461542E-17	25.00	7.50	14.40
0.17645878E-02	0.	0.	16.20
0.17271529E-02	2.50	0.	16.20
0.16128989E-02	5.00	0.	16.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.14430873E-02	7.50	0.	16.20
0.12390376E-02	10.00	0.	16.20
0.10484719E-02	12.50	0.	16.20
0.83307507E-03	15.00	0.	16.20
0.62646668E-03	17.50	0.	16.20
0.43344446E-03	20.00	0.	16.20
0.21356064E-03	22.50	0.	16.20
0.84017111E-10	25.00	0.	16.20
0.17428628E-02	0.	0.75	16.20
0.17058888E-02	2.50	0.75	16.20
0.15930415E-02	5.00	0.75	16.20
0.14253220E-02	7.50	0.75	16.20
0.12237830E-02	10.00	0.75	16.20
0.10355563E-02	12.50	0.75	16.20
0.82281853E-03	15.00	0.75	16.20
0.61875383E-03	17.50	0.75	16.20
0.42810803E-03	20.00	0.75	16.20
0.21093136E-03	22.50	0.75	16.20
0.82982719E-10	25.00	0.75	16.20
0.16782227E-02	0.	1.50	16.20
0.16426200E-02	2.50	1.50	16.20
0.15333958E-02	5.00	1.50	16.20
0.13724576E-02	7.50	1.50	16.20
0.11783948E-02	10.00	1.50	16.20
0.99715606E-03	12.50	1.50	16.20
0.79230148E-03	15.00	1.50	16.20
0.59580521E-03	17.50	1.50	16.20
0.41223017E-03	20.00	1.50	16.20
0.20310824E-03	22.50	1.50	16.20
0.79905020E-10	25.00	1.50	16.20
0.15722592E-02	0.	2.25	16.20
0.15389045E-02	2.50	2.25	16.20
0.14371033E-02	5.00	2.25	16.20
0.12858003E-02	7.50	2.25	16.20
0.11039905E-02	10.00	2.25	16.20
0.93419539E-03	12.50	2.25	16.20
0.74227532E-03	15.00	2.25	16.20
0.55818590E-03	17.50	2.25	16.20
0.38620184E-03	20.00	2.25	16.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.19028393-03	22.50	2.25	16.20
0.74859794-10	25.00	2.25	16.20
0.14275815-02	0.	3.00	16.20
0.13972960-02	2.50	3.00	16.20
0.13048626-02	5.00	3.00	16.20
0.11674822-02	7.50	3.00	16.20
0.10024024-02	10.00	3.00	16.20
0.84823164-03	12.50	3.00	16.20
0.67397189-03	15.00	3.00	16.20
0.50682221-03	17.50	3.00	16.20
0.35066393-03	20.00	3.00	16.20
0.17277419-03	22.50	3.00	16.20
0.67971271-10	25.00	3.00	16.20
0.12477520-02	0.	3.75	16.20
0.12212815-02	2.50	3.75	16.20
0.11404917-02	5.00	3.75	16.20
0.10204168-02	7.50	3.75	16.20
0.87613191-03	10.00	3.75	16.20
0.74138164-03	12.50	3.75	16.20
0.58907304-03	15.00	3.75	16.20
0.44297884-03	17.50	3.75	16.20
0.30649132-03	20.00	3.75	16.20
0.15101018-03	22.50	3.75	16.20
0.59409069-10	25.00	3.75	16.20
0.10371987-02	0.	4.50	16.20
0.10151950-02	2.50	4.50	16.20
0.94803826-03	5.00	4.50	16.20
0.64822550-03	7.50	4.50	16.20
0.72828804-03	10.00	4.50	16.20
0.61627636-03	12.50	4.50	16.20
0.48966923-03	15.00	4.50	16.20
0.36822788-03	17.50	4.50	16.20
0.25477226-03	20.00	4.50	16.20
0.12552780-03	22.50	4.50	16.20
0.49384020-10	25.00	4.50	16.20
0.80110620-03	0.	5.25	16.20
0.78411109-03	2.50	5.25	16.20
0.73224086-03	5.00	5.25	16.20
0.65514802-03	7.50	5.25	16.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.56251134E-03	10.00	5.25	16.20
0.47599634E-03	12.50	5.25	16.20
0.37820820E-03	15.00	5.25	16.20
0.28440994E-03	17.50	5.25	16.20
0.19677968E-03	20.00	5.25	16.20
0.96954513E-04	22.50	5.25	16.20
0.38142974E-10	25.00	5.25	16.20
0.54528770E-03	0.	6.00	16.20
0.53371967E-03	2.50	6.00	16.20
0.49841323E-03	5.00	6.00	16.20
0.44593857E-03	7.50	6.00	16.20
0.38288372E-03	10.00	6.00	16.20
0.32399569E-03	12.50	6.00	16.20
0.25743438E-03	15.00	6.00	16.20
0.19358887E-03	17.50	6.00	16.20
0.13394172E-03	20.00	6.00	16.20
0.65993873E-04	22.50	6.00	16.20
0.25962719E-10	25.00	6.00	16.20
0.27604241E-03	0.	6.75	16.20
0.27018630E-03	2.50	6.75	16.20
0.25231304E-03	5.00	6.75	16.20
0.22574865E-03	7.50	6.75	16.20
0.19382823E-03	10.00	6.75	16.20
0.16401718E-03	12.50	6.75	16.20
0.13032167E-03	15.00	6.75	16.20
0.98001004E-04	17.50	6.75	16.20
0.67805666E-04	20.00	6.75	16.20
0.33408252E-04	22.50	6.75	16.20
0.13143174E-10	25.00	6.75	16.20
0.52588815E-10	0.	7.50	16.20
0.51473169E-10	2.50	7.50	16.20
0.48068134E-10	5.00	7.50	16.20
0.43007354E-10	7.50	7.50	16.20
0.36926197E-10	10.00	7.50	16.20
0.31246898E-10	12.50	7.50	16.20
0.24827571E-10	15.00	7.50	16.20
0.18670162E-10	17.50	7.50	16.20
0.12917651E-10	20.00	7.50	16.20
0.63646031E-11	22.50	7.50	16.20

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.25039050E-17	25.00	7.50	16.20
0.67234281E-09	0.00	0.00	18.00
0.65807937E-09	2.50	0.00	18.00
0.61454636E-09	5.00	0.00	18.00
0.54984478E-09	7.50	0.00	18.00
0.47209778E-09	10.00	0.00	18.00
0.39948852E-09	12.50	0.00	18.00
0.31741805E-09	15.00	0.00	18.00
0.23869617E-09	17.50	0.00	18.00
0.16515090E-09	20.00	0.00	18.00
0.81370825E-10	22.50	0.00	18.00
0.32012177E-16	25.00	0.00	18.00
0.66406516E-09	0.00	0.75	18.00
0.64997733E-09	2.50	0.75	18.00
0.60698027E-09	5.00	0.75	18.00
0.54307528E-09	7.50	0.75	18.00
0.46628547E-09	10.00	0.75	18.00
0.39457016E-09	12.50	0.75	18.00
0.31351011E-09	15.00	0.75	18.00
0.23575743E-09	17.50	0.75	18.00
0.16311761E-09	20.00	0.75	18.00
0.80369014E-10	22.50	0.75	18.00
0.31618055E-16	25.00	0.75	18.00
0.63943601E-09	0.00	1.50	18.00
0.62587067E-09	2.50	1.50	18.00
0.58446831E-09	5.00	1.50	18.00
0.52293347E-09	7.50	1.50	18.00
0.44899347E-09	10.00	1.50	18.00
0.37993617E-09	12.50	1.50	18.00
0.30188251E-09	15.00	1.50	18.00
0.22701356E-09	17.50	1.50	18.00
0.15706784E-09	20.00	1.50	18.00
0.77388252E-10	22.50	1.50	18.00
0.30445390E-16	25.00	1.50	18.00
0.59906185E-09	0.00	2.25	18.00
0.58635301E-09	2.50	2.25	18.00
0.54756482E-09	5.00	2.25	18.00
0.48991530E-09	7.50	2.25	18.00
0.42064222E-09	10.00	2.25	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.35594688E-09	12.50	2.25	18.00
0.28282156E-09	15.00	2.25	18.00
0.21267986E-09	17.50	2.25	18.00
0.14715052E-09	20.00	2.25	18.00
0.72501936E-10	22.50	2.25	18.00
0.28523059E-16	25.00	2.25	18.00
0.54393677E-09	0.	3.00	18.00
0.53239740E-09	2.50	3.00	18.00
0.49717845E-09	5.00	3.00	18.00
0.44483379E-09	7.50	3.00	18.00
0.38193514E-09	10.00	3.00	18.00
0.32319301E-09	12.50	3.00	18.00
0.25679659E-09	15.00	3.00	18.00
0.19310927E-09	17.50	3.00	18.00
0.13360986E-09	20.00	3.00	18.00
0.65830379E-10	22.50	3.00	18.00
0.25898397E-16	25.00	3.00	18.00
0.47541816E-09	0.	3.75	18.00
0.46533240E-09	2.50	3.75	18.00
0.43454991E-09	5.00	3.75	18.00
0.38879900E-09	7.50	3.75	18.00
0.33382356E-09	10.00	3.75	18.00
0.28248104E-09	12.50	3.75	18.00
0.22444846E-09	15.00	3.75	18.00
0.16878369E-09	17.50	3.75	18.00
0.11677932E-09	20.00	3.75	18.00
0.57337863E-10	22.50	3.75	18.00
0.22636028E-16	25.00	3.75	18.00
0.39519320E-09	0.	4.50	18.00
0.38680936E-09	2.50	4.50	18.00
0.36122130E-09	5.00	4.50	18.00
0.32319066E-09	7.50	4.50	18.00
0.27749212E-09	10.00	4.50	18.00
0.23481346E-09	12.50	4.50	18.00
0.18657365E-09	15.00	4.50	18.00
0.14030209E-09	17.50	4.50	18.00
0.97073266E-10	20.00	4.50	18.00
0.47828572E-10	22.50	4.50	18.00
0.18816286E-16	25.00	4.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLWAY CODE

GROUP 2

FLUX	X	Y	Z
0.30523727E-09	0.	5.25	18.00
0.29876181E-09	2.50	5.25	18.00
0.27899823E-09	5.00	5.25	18.00
0.24962433E-09	7.50	5.25	18.00
0.21432793E-09	10.00	5.25	18.00
0.18136400E-09	12.50	5.25	18.00
0.14410479E-09	15.00	5.25	18.00
0.10836580E-09	17.50	5.25	18.00
0.74976943E-10	20.00	5.25	18.00
0.36941583E-10	22.50	5.25	18.00
0.14533225E-16	25.00	5.25	18.00
0.20776538E-09	0.	6.00	18.00
0.20335773E-09	2.50	6.00	18.00
0.18990529E-09	5.00	6.00	18.00
0.16991140E-09	7.50	6.00	18.00
0.14588626E-09	10.00	6.00	18.00
0.12344875E-09	12.50	6.00	18.00
0.98087586E-10	15.00	6.00	18.00
0.73761182E-10	17.50	6.00	18.00
0.51034440E-10	20.00	6.00	18.00
0.25144970E-10	22.50	6.00	18.00
0.98923085E-17	25.00	6.00	18.00
0.10517761E-09	0.	6.75	18.00
0.10294632E-09	2.50	6.75	18.00
0.96136253E-10	5.00	6.75	18.00
0.86014695E-10	7.50	6.75	18.00
0.73852382E-10	10.00	6.75	18.00
0.62493785E-10	12.50	6.75	18.00
0.49655136E-10	15.00	6.75	18.00
0.37340318E-10	17.50	6.75	18.00
0.25835298E-10	20.00	6.75	18.00
0.12729204E-10	22.50	6.75	18.00
0.50078092E-17	25.00	6.75	18.00
0.20037377E-16	0.	7.50	18.00
0.19612294E-16	2.50	7.50	18.00
0.18314908E-16	5.00	7.50	18.00
0.16386651E-16	7.50	7.50	18.00
0.14069610E-16	10.00	7.50	18.00
0.11905686E-16	12.50	7.50	18.00



LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

FLUX	X	Y	Z
0.94597952E-17	15.00	7.50	18.00
0.71137003E-17	17.50	7.50	18.00
0.49218803E-17	20.00	7.50	18.00
0.24250396E-17	22.50	7.50	18.00
0.95403724E-24	25.00	7.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 1

REGION	FLUX	X	Y	Z
1	0.25663932E-00	0.	0.	0.
1	0.11117200E-00	12.00	0.	0.
1	0.76484476E-08	0.	7.50	0.
1	0.33131839E-08	12.00	7.50	0.
1	0.76484476E-08	0.	0.	18.00
1	0.33131839E-08	12.00	0.	18.00
1	0.22794150E-15	0.	7.50	18.00
1	0.98740575E-16	12.00	7.50	18.00
2	0.11117200E-00	12.00	0.	0.
2	0.29477663E-01	19.00	0.	0.
2	0.33131839E-08	12.00	7.50	0.
2	0.87850282E-09	19.00	7.50	0.
2	0.33131839E-08	12.00	0.	18.00
2	0.87850282E-09	19.00	0.	18.00
2	0.98740575E-16	12.00	7.50	18.00
2	0.26181424E-16	19.00	7.50	18.00
3	0.29477663E-01	19.00	0.	0.
3	0.60511809E-08	25.00	0.	0.
3	0.87850282E-09	19.00	7.50	0.
3	0.18033924E-15	25.00	7.50	0.
3	0.87850282E-09	19.00	0.	18.00
3	0.18033924E-15	25.00	0.	18.00
3	0.26181424E-16	19.00	7.50	18.00
3	0.53745283E-23	25.00	7.50	18.00

LOUISE III

SAMPLE PROBLEM FOR COMPARATION WITH WHIRLAWAY CODE

GROUP 2

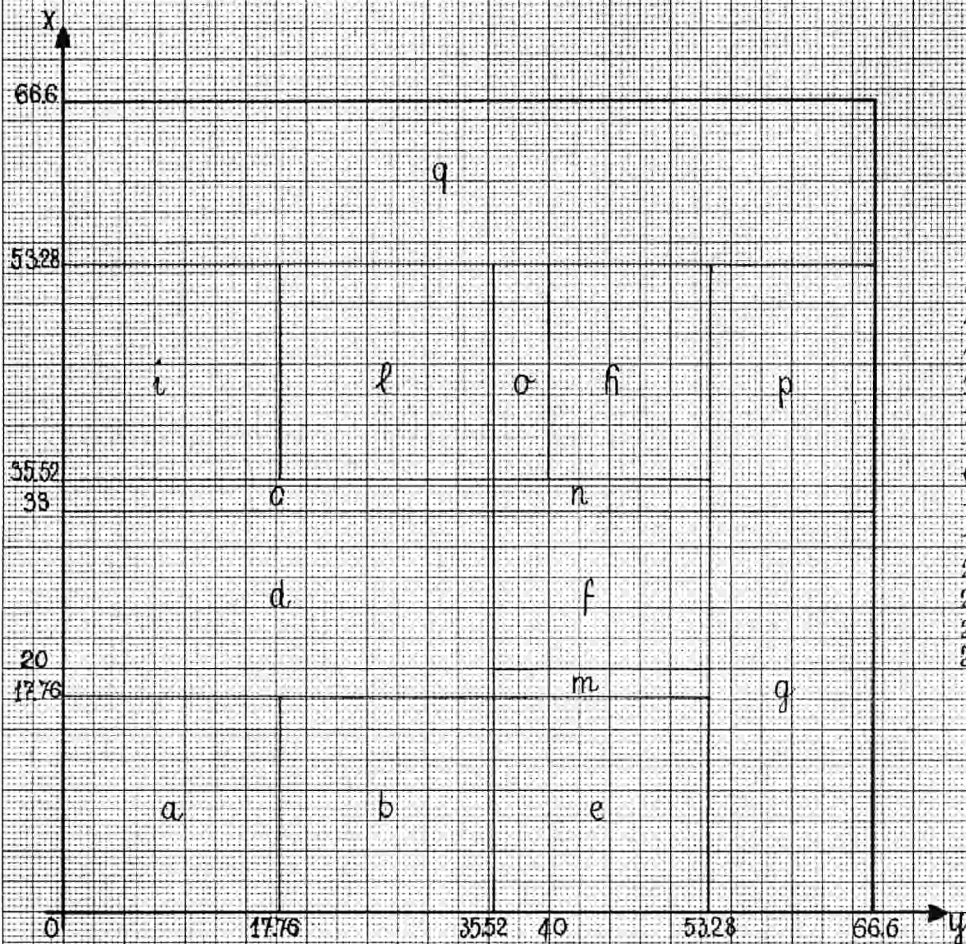
REGION	FLUX	X	Y	Z
1	0.11280040E-01	0.	0.	0.
1	0.69473458E-02	12.00	0.	0.
1	0.33617140E-09	0.	7.50	0.
1	0.20704704E-09	12.00	7.50	0.
1	0.33617140E-09	0.	0.	18.00
1	0.20704704E-09	12.00	0.	18.00
1	0.10018688E-16	0.	7.50	18.00
1	0.61704826E-17	12.00	7.50	18.00
2	0.69473458E-02	12.00	0.	0.
2	0.32862309E-02	19.00	0.	0.
2	0.20704704E-09	12.00	7.50	0.
2	0.97937314E-10	19.00	7.50	0.
2	0.20704704E-09	12.00	0.	18.00
2	0.97937314E-10	19.00	0.	18.00
2	0.61704826E-17	12.00	7.50	18.00
2	0.29187594E-17	19.00	7.50	18.00
3	0.32862309E-02	19.00	0.	0.
3	0.53707522E-09	25.00	0.	0.
3	0.97937314E-10	19.00	7.50	0.
3	0.16006088E-16	25.00	7.50	0.
3	0.97937314E-10	19.00	0.	18.00
3	0.16006088E-16	25.00	0.	18.00
3	0.29187594E-17	19.00	7.50	18.00
3	0.47701862E-24	25.00	7.50	18.00

END





# Reactor and geometric subdivision



region	cross section	height
1	a	15 ÷ 70
2	a	70 ÷ 115
3	b	15 ÷ 115
4	c+d	15 ÷ 115
5	e	65 ÷ 115
6	f+m+n	65 ÷ 115
7	o+h	65 ÷ 115
8	p	65 ÷ 115
9	i	65 ÷ 115
10	e+m	15 ÷ 65
11	f+n	15 ÷ 65
12	i+l+o	15 ÷ 65
13	h	15 ÷ 65
14	a+b+e+d+f+m+g	0 ÷ 15
15	c+n+i+l+o+h+p+q	0 ÷ 15
16	p+g	15 ÷ 130
17	q	15 ÷ 130
18	a+b+c+d	115 ÷ 130
19	e	115 ÷ 130
20	m+f+n	115 ÷ 130
21	h+o	115 ÷ 130
22	p	115 ÷ 130
23	i	115 ÷ 130

cm. 10

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

DIMENSION= 3

REGIONS NUMBER=19      GROUPS NUMBER= 2

GREATEST NUMBER OF ITERATIONS= 99      MESH INTERVALS ON EACH AXIS= 2.0      PRECISION=0.001000

HARMONICS NUMBER ALONG X AXIS 3, Y AXIS 3, Z AXIS 3

LOUISE 111

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

REGION	X1	X2	Y1	Y2	Z1	Z2
1	-0.	17.76	-0.	17.76	15.00	115.00
2	-0.	17.76	17.76	35.52	15.00	115.00
3	17.76	35.52	0.	35.52	15.00	115.00
4	-0.	17.76	35.52	53.28	65.00	115.00
5	17.76	35.52	35.52	53.28	65.00	115.00
6	35.52	53.28	35.52	53.28	65.00	115.00
7	35.52	53.28	17.76	35.52	65.00	115.00
8	35.52	53.28	0.	17.76	65.00	115.00
9	0.	35.52	35.52	53.28	15.00	65.00
10	35.52	53.28	0.	53.28	15.00	65.00
11	0.	66.60	0.	66.60	0.	15.00
12	0.	53.28	53.28	66.60	15.00	130.00
13	53.28	66.60	0.	66.60	15.00	130.00
14	0.	35.52	0.	35.52	115.00	130.00
15	-0.	17.76	35.52	53.28	115.00	130.00
16	17.76	35.52	35.52	53.28	115.00	130.00
17	35.52	53.28	35.52	53.28	115.00	130.00
18	35.52	53.28	17.76	35.52	115.00	130.00
19	35.52	53.28	-0.	17.76	115.00	130.00



LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

REGION	GROUP	ABS+REM	NU FISS	REM	DIFF
1	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
1	2	0.30000000E-01	-0.57600000E-01	0.	0.47200000E-00
2	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E-01
2	2	0.45000000E-01	-0.86399999E-01	0.	0.47200000E-00
3	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
3	2	0.45000000E-01	-0.86399999E-01	0.	0.47200000E-00
4	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
4	2	0.73329999E-01	-0.11520000E-00	0.	0.47200000E-00
5	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
5	2	0.59999999E-01	-0.11520000E-00	0.	0.47200000E-00
6	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
6	2	0.73329999E-01	-0.11520000E-00	0.	0.47200000E-00
7	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
7	2	0.59999999E-01	-0.11520000E-00	0.	0.47200000E-00
8	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
8	2	0.73329999E-01	-0.11520000E-00	0.	0.47200000E-00
9	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
9	2	0.59999999E-01	-0.11520000E-00	0.	0.47200000E-00
10	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
10	2	0.59999999E-01	-0.11520000E-00	0.	0.47200000E-00
11	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
11	2	0.80799999E-02	-0.	0.	0.32799999E-00
12	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
12	2	0.80799999E-02	-0.	0.	0.32799999E-00
13	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
13	2	0.80799999E-02	-0.	0.	0.32799999E-00
14	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
14	2	0.80799999E-02	-0.	0.	0.32799999E-00
15	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
15	2	0.21410000E-01	-0.	0.	0.32799999E-00
16	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
16	2	0.80799999E-02	-0.	0.	0.32799999E-00
17	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
17	2	0.21410000E-01	-0.	0.	0.32799999E-00
18	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
18	2	0.80799999E-02	-0.	0.	0.32799999E-00
19	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
19	2	0.21410000E-01	-0.	0.	0.32799999E-00

GROUP FISSION SPECTRUM INTEGRAL

1	0.09999999E 01
2	-0.

LCUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

ITERATION	EIGENVALUE	
1	0.09999999E 01	0.49644378E-00
2	0.49644378E-00	0.74183068E 00
3	0.74183068E 00	0.97004866E 00
4	0.97004866E 00	0.11166507E 01
5	0.11166507E 01	0.12016274E 01
6	0.12016274E 01	0.12497319E 01
7	0.12497319E 01	0.12775424E 01
8	0.12775424E 01	0.12945068E 01
9	0.12945068E 01	0.13055769E 01
10	0.13055769E 01	0.13132913E 01
11	0.13132913E 01	0.13189674E 01
12	0.13189674E 01	0.13233110E 01
13	0.13233110E 01	0.13267194E 01
14	0.13267194E 01	0.13294311E 01
15	0.13294311E 01	0.13316027E 01
16	0.13316027E 01	0.13333444E 01
17	0.13333444E 01	0.13347395E 01
18	0.13347395E 01	0.13358543E 01

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

COEFFICIENTS (I,J,K)

I	J	K	GROUP 1	GROUP 2
1	1	1	0.73267043E-01	0.33083286E-01
2	1	1	-0.58434051E-03	0.22100681E-02
3	1	1	-0.16665741E-02	0.14849639E-02
1	2	1	-0.58433957E-03	0.22100685E-02
2	2	1	-0.87951758E-03	0.18206961E-02
3	2	1	-0.27947177E-03	0.59099485E-03
1	3	1	-0.16665743E-02	0.14849639E-02
2	3	1	-0.27947183E-03	0.59099480E-03
3	3	1	-0.27777515E-03	0.42675879E-03
1	1	2	-0.65255997E-02	0.73606803E-02
2	1	2	-0.18290094E-02	-0.79769131E-03
3	1	2	-0.17021974E-03	-0.49873674E-04
1	1	3	-0.18290095E-02	-0.79769133E-03
2	1	3	-0.94622444E-03	-0.50456837E-03
3	1	3	-0.10667721E-03	-0.16158500E-03
1	2	2	-0.17021988E-03	-0.49873744E-04
2	2	2	-0.10667722E-03	-0.16158500E-03
3	2	2	-0.32599985E-04	0.71037394E-04
1	1	1	-0.15592201E-01	-0.39603622E-02
2	1	1	-0.23870967E-03	-0.26530969E-03
3	1	1	-0.11537644E-03	-0.42929448E-03
1	2	2	-0.23870964E-03	-0.26530974E-03
2	2	2	-0.14009024E-03	-0.16865990E-03
3	2	2	-0.72145570E-04	-0.59358291E-04
1	1	3	0.11537627E-03	-0.42929459E-03
2	1	3	0.721455563E-04	-0.59358290E-04
3	1	3	0.19194607E-04	-0.10253773E-03

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 1

FLUX	X	Y	Z
0.15101515E-03	0.	0.	0.
0.14140617E-03	33.30	0.	0.
0.58409135E-11	66.60	0.	0.
0.14140616E-03	0.	33.30	0.
0.10555182E-03	33.30	33.30	0.
0.40723538E-11	66.60	33.30	0.
0.58409128E-11	0.	66.60	0.
0.40723536E-11	33.30	66.60	0.
0.10471574E-18	66.60	66.60	0.
0.24640436E-03	0.	0.	65.00
0.17930592E-03	33.30	0.	65.00
0.56599841E-11	66.60	0.	65.00
0.17930592E-03	0.	33.30	65.00
0.12567159E-03	33.30	33.30	65.00
0.43628839E-11	66.60	33.30	65.00
0.56599835E-11	0.	66.60	65.00
0.43628836E-11	33.30	66.60	65.00
0.12105118E-18	66.60	66.60	65.00
0.17893347E-12	0.	0.	130.00
-0.12562767E-11	33.30	0.	130.00
-0.18672124E-18	66.60	0.	130.00
-0.12562764E-11	0.	33.30	130.00
-0.73483402E-12	33.30	33.30	130.00
-0.72070608E-19	66.60	33.30	130.00
-0.18672129E-18	0.	66.60	130.00
-0.72070640E-19	33.30	66.60	130.00
-0.60681161E-26	66.60	66.60	130.00

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 2

FLUX	X	Y	Z
0.19068038E-03	0.	0.	0.
0.11094044E-03	33.30	0.	0.
0.54388333E-11	66.60	0.	0.
0.11094045E-03	0.	33.30	0.
0.78559304E-04	33.30	33.30	0.
0.36188833E-11	66.60	33.30	0.
0.54388330E-11	0.	66.60	0.
0.36188833E-11	33.30	66.60	0.
0.22672658E-18	66.60	66.60	0.
0.96431626E-04	0.	0.	65.00
0.32006888E-04	33.30	0.	65.00
0.17343393E-11	66.60	0.	65.00
0.32006887E-04	0.	33.30	65.00
0.21153682E-04	33.30	33.30	65.00
0.11652065E-11	66.60	33.30	65.00
0.17343391E-11	0.	66.60	65.00
0.11652065E-11	33.30	66.60	65.00
0.91932879E-19	66.60	66.60	65.00
0.42594799E-11	0.	0.	130.00
0.21322419E-11	33.30	0.	130.00
-0.25442728E-19	66.60	0.	130.00
0.21322421E-11	0.	33.30	130.00
0.17232949E-11	33.30	33.30	130.00
0.33740021E-19	66.60	33.30	130.00
-0.25442754E-19	0.	66.60	130.00
0.33740000E-19	33.30	66.60	130.00
-0.56805252E-26	66.60	66.60	130.00

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 1

REGION	FLUX	X	Y	Z
1	0.17499601E-03	-0.	-0.	15.00
1	0.17973066E-03	17.76	-0.	15.00
1	0.17973066E-03	-0.	17.76	15.00
1	0.17639079E-03	17.76	17.76	15.00
1	0.20655662E-04	-0.	-0.	115.00
1	0.17737246E-04	17.76	-0.	115.00
1	0.17737248E-04	-0.	17.76	115.00
1	0.15817890E-04	17.76	17.76	115.00
2	0.17973066E-03	-0.	17.76	15.00
2	0.17639079E-03	17.76	17.76	15.00
2	0.14881703E-03	-0.	35.52	15.00
2	0.13916780E-03	17.76	35.52	15.00
2	0.17737248E-04	-0.	17.76	115.00
2	0.15817890E-04	17.76	17.76	115.00
2	0.86777169E-05	-0.	35.52	115.00
2	0.89914358E-05	17.76	35.52	115.00
2	0.17973066E-03	17.76	0.	15.00
2	0.14881703E-03	35.52	0.	15.00
2	0.13916780E-03	17.76	35.52	15.00
2	0.10254638E-03	35.52	35.52	15.00
2	0.17737246E-04	17.76	0.	115.00
2	0.86777147E-05	35.52	0.	115.00
2	0.89914358E-05	17.76	35.52	115.00
2	0.65074697E-05	35.52	35.52	115.00
4	0.16812126E-03	-0.	55.28	65.00
4	0.15522846E-03	17.76	55.28	65.00
4	0.68114072E-04	-0.	55.28	65.00
4	0.64526069E-04	17.76	55.28	65.00
4	0.86777169E-05	-0.	55.28	115.00
4	0.89914358E-05	17.76	55.28	115.00
4	0.81320646E-06	-0.	55.28	115.00
4	0.19732136E-05	17.76	55.28	115.00
4	0.15522846E-03	17.76	55.28	65.00
4	0.11082762E-03	35.52	55.28	65.00
4	0.64526069E-04	17.76	55.28	65.00
4	0.46777310E-04	35.52	55.28	65.00
4	0.89914358E-05	17.76	55.28	115.00
4	0.65074697E-05	35.52	55.28	115.00
4	0.19732136E-05	17.76	55.28	115.00

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 1

REGION	FLUX	X	Y	Z
5	0.19027399E-05	35.52	53.28	115.00
6	0.11082762E-03	35.52	35.52	65.00
6	0.46777310E-04	35.52	35.52	65.00
6	0.46777310E-04	35.52	53.28	65.00
6	0.18908019E-04	35.52	53.28	65.00
6	0.65074697E-05	35.52	35.52	115.00
6	0.19027404E-05	35.52	35.52	115.00
6	0.19027399E-05	35.52	53.28	115.00
6	0.14269483E-06	35.52	53.28	115.00
7	0.15522846E-03	35.52	17.76	65.00
7	0.64526075E-04	35.52	17.76	65.00
7	0.11082762E-03	35.52	35.52	65.00
7	0.46777310E-04	35.52	35.52	65.00
7	0.89914355E-05	35.52	17.76	115.00
7	0.19732150E-05	35.52	17.76	115.00
7	0.65074697E-05	35.52	35.52	115.00
7	0.19027404E-05	35.52	35.52	115.00
8	0.16812126E-03	35.52	-0.	65.00
8	0.68114076E-04	35.52	-0.	65.00
8	0.15522846E-03	35.52	17.76	65.00
8	0.64526075E-04	35.52	17.76	65.00
8	0.86777147E-05	35.52	-0.	115.00
8	0.81320774E-06	35.52	-0.	115.00
8	0.89914355E-05	35.52	17.76	115.00
8	0.19732150E-05	35.52	17.76	115.00
9	0.14881703E-03	35.52	35.52	15.00
9	0.10254638E-03	35.52	35.52	15.00
9	0.66466473E-04	35.52	53.28	15.00
9	0.44859473E-04	35.52	53.28	15.00
9	0.16812126E-03	35.52	35.52	65.00
9	0.11082762E-03	35.52	35.52	65.00
9	0.68114072E-04	35.52	53.28	65.00
9	0.46777310E-04	35.52	53.28	65.00
10	0.14881703E-03	35.52	0.	15.00
10	0.66466479E-04	35.52	0.	15.00
10	0.44859473E-04	35.52	53.28	15.00
10	0.18408161E-04	35.52	53.28	15.00
10	0.16812126E-03	35.52	0.	65.00
10	0.68114076E-04	35.52	0.	65.00

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 1

REGION	FLUX	X	Y	Z
10	0.46777310E-04	35.52	53.28	65.00
10	0.18908019E-04	53.28	53.28	65.00
11	0.15101515E-03	0.	0.	0.
11	0.58409135E-11	66.60	0.	0.
11	0.58409128E-11	0.	66.60	0.
11	0.10471574E-18	66.60	66.60	0.
11	0.17499601E-03	0.	0.	15.00
11	0.62585966E-11	66.60	0.	15.00
11	0.62585960E-11	0.	66.60	15.00
11	0.11742143E-18	66.60	66.60	15.00
12	0.66466473E-04	0.	53.28	15.00
12	0.18408161E-04	53.28	53.28	15.00
12	0.62585960E-11	0.	66.60	15.00
12	0.15541946E-11	53.28	66.60	15.00
12	0.12683511E-11	0.	53.28	130.00
12	0.37321860E-12	53.28	53.28	130.00
12	0.18672129E-18	0.	66.60	130.00
12	0.47953957E-19	53.28	66.60	130.00
13	0.66466479E-04	53.28	0.	15.00
13	0.62585966E-11	66.60	0.	15.00
13	0.15541946E-11	53.28	66.60	15.00
13	0.11742143E-18	66.60	66.60	15.00
13	0.12683509E-11	53.28	0.	130.00
13	0.18672124E-18	66.60	0.	130.00
13	0.47953957E-19	53.28	66.60	130.00
13	0.60681161E-26	66.60	66.60	130.00
14	0.20605662E-04	0.	0.	115.00
14	0.86777147E-05	35.52	0.	115.00
14	0.86777169E-05	0.	35.52	115.00
14	0.65074697E-05	35.52	35.52	115.00
14	0.17893347E-12	0.	0.	130.00
14	0.13649502E-11	35.52	0.	130.00
14	0.13649501E-11	0.	35.52	130.00
14	0.71429588E-12	35.52	35.52	130.00
15	0.86777169E-05	0.	35.52	115.00
15	0.89914358E-05	17.76	35.52	115.00
15	0.81320646E-06	0.	53.28	115.00
15	0.19732136E-05	17.76	53.28	115.00
15	0.13649501E-11	0.	35.52	130.00



LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 1

REGION	FLUX	X	Y	Z
15	-0.10157139E-11	17.76	35.52	130.00
15	-0.12683511E-11	-0.	53.28	130.00
15	-0.89082640E-12	17.76	53.28	130.00
16	0.89914358E-05	17.76	35.52	115.00
16	0.65074697E-05	35.52	35.52	115.00
16	0.19732136E-05	17.76	53.28	115.00
16	0.19027399E-05	35.52	53.28	115.00
16	-0.10157139E-11	17.76	35.52	130.00
16	-0.71429588E-12	35.52	35.52	130.00
16	-0.89082640E-12	17.76	53.28	130.00
16	-0.52357339E-12	35.52	53.28	130.00
17	0.65074697E-05	35.52	35.52	115.00
17	0.19027404E-05	53.28	35.52	115.00
17	0.19027399E-05	35.52	53.28	115.00
17	0.14269483E-06	53.28	53.28	115.00
17	-0.71429588E-12	35.52	35.52	130.00
17	-0.52357339E-12	53.28	35.52	130.00
17	-0.52357339E-12	35.52	53.28	130.00
17	-0.37321860E-12	53.28	53.28	130.00
18	0.89914355E-05	35.52	17.76	115.00
18	0.19732150E-05	53.28	17.76	115.00
18	0.65074697E-05	35.52	35.52	115.00
18	0.19027404E-05	53.28	35.52	115.00
18	-0.10157139E-11	35.52	17.76	130.00
18	-0.89082623E-12	53.28	17.76	130.00
18	-0.71429588E-12	35.52	35.52	130.00
18	-0.52357320E-12	53.28	35.52	130.00
19	0.86777147E-05	35.52	-0.	115.00
19	0.81320774E-06	53.28	-0.	115.00
19	0.89914355E-05	35.52	17.76	115.00
19	0.19732150E-05	53.28	17.76	115.00
19	-0.13649502E-11	35.52	-0.	130.00
19	-0.12683509E-11	53.28	-0.	130.00
19	-0.10157139E-11	35.52	17.76	130.00
19	-0.89082623E-12	53.28	17.76	130.00

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 2

REGION	FLUX	X	Y	Z
1	0.18214356E-03	-0.	-0.	15.00
1	0.14880747E-03	17.76	-0.	15.00
1	0.14880747E-03	-0.	17.76	15.00
1	0.12727569E-03	17.76	17.76	15.00
1	0.26028273E-04	-0.	-0.	115.00
1	0.21035531E-04	17.76	-0.	115.00
1	0.21035531E-04	-0.	17.76	115.00
1	0.17944000E-04	17.76	17.76	115.00
2	0.14880747E-03	-0.	17.76	15.00
2	0.12727569E-03	17.76	17.76	15.00
2	0.96439856E-04	-0.	35.52	15.00
2	0.87312093E-04	17.76	35.52	15.00
2	0.21035531E-04	-0.	17.76	115.00
2	0.17944000E-04	17.76	17.76	115.00
2	0.10768490E-04	-0.	35.52	115.00
2	0.10765652E-04	17.76	35.52	115.00
3	0.14880747E-03	17.76	0.	15.00
3	0.96439854E-04	35.52	0.	15.00
3	0.87312093E-04	17.76	35.52	15.00
3	0.65080561E-04	35.52	35.52	15.00
3	0.21035531E-04	17.76	0.	115.00
3	0.10768490E-04	35.52	0.	115.00
3	0.10765652E-04	17.76	35.52	115.00
4	0.81117317E-05	35.52	35.52	115.00
4	0.29260333E-04	-0.	35.52	65.00
4	0.25756476E-04	17.76	35.52	65.00
4	0.16130798E-04	-0.	35.52	65.00
4	0.13640025E-04	17.76	35.52	65.00
4	0.10768490E-04	-0.	35.52	115.00
4	0.10765652E-04	17.76	35.52	115.00
4	0.30547958E-05	-0.	35.52	115.00
4	0.38608566E-05	17.76	35.52	115.00
4	0.25756476E-04	17.76	35.52	65.00
5	0.19374777E-04	35.52	35.52	65.00
5	0.13640025E-04	17.76	35.52	65.00
5	0.10338741E-04	35.52	35.52	65.00
5	0.10765652E-04	17.76	35.52	115.00
5	0.81117317E-05	35.52	35.52	115.00
5	0.38608566E-05	17.76	35.52	115.00

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 2

REGION	FLUX	X	Y	Z
5	0.30741523E-05	35.52	53.28	115.00
6	0.19374777E-04	35.52	35.52	65.00
6	0.10387410E-04	53.28	35.52	65.00
6	0.10387411E-04	35.52	53.28	65.00
6	0.62437558E-05	53.28	53.28	65.00
6	0.81117317E-05	35.52	35.52	115.00
6	0.30741526E-05	53.28	35.52	115.00
6	0.30741523E-05	35.52	53.28	115.00
6	0.63036123E-06	53.28	53.28	115.00
7	0.25756478E-04	35.52	17.76	65.00
7	0.13640026E-04	53.28	17.76	65.00
7	0.19374777E-04	35.52	35.52	65.00
7	0.10387410E-04	53.28	35.52	65.00
7	0.10765652E-04	35.52	17.76	115.00
7	0.38608574E-05	53.28	17.76	115.00
7	0.81117317E-05	35.52	35.52	115.00
7	0.30741526E-05	53.28	35.52	115.00
8	0.29260334E-04	35.52	-0.	65.00
8	0.16130799E-04	53.28	-0.	65.00
8	0.25756478E-04	35.52	17.76	65.00
8	0.13640026E-04	53.28	17.76	65.00
8	0.10768490E-04	35.52	-0.	115.00
8	0.30547963E-05	53.28	-0.	115.00
8	0.10765652E-04	35.52	17.76	115.00
8	0.38608574E-05	53.28	17.76	115.00
9	0.96439856E-04	0.	35.52	15.00
9	0.65080561E-04	35.52	35.52	15.00
9	0.49145583E-04	0.	53.28	15.00
9	0.31926537E-04	35.52	53.28	15.00
9	0.29260333E-04	0.	35.52	65.00
9	0.19374777E-04	35.52	35.52	65.00
9	0.16130798E-04	0.	53.28	65.00
9	0.10387411E-04	35.52	53.28	65.00
10	0.96439854E-04	35.52	0.	15.00
10	0.49145585E-04	53.28	0.	15.00
10	0.31926537E-04	35.52	53.28	15.00
10	0.17227136E-04	53.28	53.28	15.00
10	0.29260334E-04	35.52	0.	65.00
10	0.16130799E-04	53.28	0.	65.00

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 2

REGION	FLUX	X	Y	Z
10	0.10387411E-04	35.52	53.28	65.00
10	0.62437558E-05	53.28	53.28	65.00
11	0.19068038E-03	0.	0.	0.
11	0.54388333E-11	66.60	0.	0.
11	0.54388330E-11	0.	66.60	0.
11	0.22672658E-18	66.60	66.60	0.
11	0.18214356E-03	0.	0.	15.00
11	0.51299887E-11	66.60	0.	15.00
11	0.51299885E-11	0.	66.60	15.00
11	0.22043286E-18	66.60	66.60	15.00
12	0.49145583E-04	0.	53.28	15.00
12	0.17227136E-04	53.28	53.28	15.00
12	0.51299885E-11	0.	66.60	15.00
12	0.18981027E-11	53.28	66.60	15.00
12	0.31121477E-12	0.	53.28	130.00
12	-0.14489056E-13	53.28	53.28	130.00
12	-0.25442754E-19	0.	66.60	130.00
12	-0.23669297E-19	53.28	66.60	130.00
13	0.49145585E-04	53.28	0.	15.00
13	0.51299887E-11	66.60	0.	15.00
13	0.18981027E-11	53.28	66.60	15.00
13	0.22043286E-18	66.60	66.60	15.00
13	0.31121488E-12	53.28	0.	130.00
13	-0.25442728E-19	66.60	0.	130.00
13	-0.23669297E-19	53.28	66.60	130.00
13	-0.56805252E-26	66.60	66.60	130.00
14	0.26028273E-04	0.	0.	115.00
14	0.10768490E-04	35.52	0.	115.00
14	0.10768490E-04	0.	35.52	115.00
14	0.81117317E-05	35.52	35.52	115.00
14	0.42594799E-11	0.	0.	130.00
14	0.18778290E-11	35.52	0.	130.00
14	0.18778291E-11	0.	35.52	130.00
14	0.14904999E-11	35.52	35.52	130.00
15	0.10768490E-04	0.	35.52	115.00
15	0.10768652E-04	17.76	35.52	115.00
15	0.30547958E-05	0.	53.28	115.00
15	0.38608566E-05	17.76	53.28	115.00
15	0.18778291E-11	0.	35.52	130.00

LOUISE III

TEST REACTOR 1ST GEOMETRIC SUBDIVISION

GROUP 2

REGION	FLUX	X	Y	Z
15	0.19739389E-11	17.76	35.52	130.00
15	0.31121477E-12	-0.	53.28	130.00
15	0.58592674E-12	17.76	53.28	130.00
16	0.10765652E-04	17.76	35.52	115.00
16	0.61117317E-05	35.52	35.52	115.00
16	0.38608566E-05	17.76	53.28	115.00
16	0.30741523E-05	35.52	53.28	115.00
16	0.19739389E-11	17.76	35.52	130.00
16	0.14904999E-11	35.52	35.52	130.00
16	0.58592674E-12	17.76	53.28	130.00
16	0.48315991E-12	35.52	53.28	130.00
17	0.81117317E-05	35.52	35.52	115.00
17	0.30741526E-05	53.28	35.52	115.00
17	0.30741523E-05	53.28	53.28	115.00
17	0.63036183E-06	53.28	53.28	115.00
17	0.14904999E-11	53.28	35.52	130.00
17	0.48316000E-12	53.28	53.28	130.00
17	0.48315991E-12	53.28	35.52	130.00
17	0.14489056E-13	53.28	53.28	130.00
18	0.10765652E-04	35.52	17.76	115.00
18	0.38608574E-05	53.28	17.76	115.00
18	0.61117317E-05	35.52	35.52	115.00
18	0.30741526E-05	53.28	35.52	115.00
18	0.19739389E-11	17.76	17.76	130.00
18	0.58592687E-12	53.28	17.76	130.00
18	0.14904999E-11	35.52	35.52	130.00
18	0.48316000E-12	53.28	35.52	130.00
19	0.10768490E-04	53.28	-0.	115.00
19	0.30547963E-05	53.28	-0.	115.00
19	0.10765652E-04	35.52	17.76	115.00
19	0.38608574E-05	53.28	17.76	115.00
19	0.18778290E-11	35.52	-0.	130.00
19	0.31121488E-12	53.28	-0.	130.00
19	0.19739389E-11	35.52	17.76	130.00
19	0.58592687E-12	53.28	17.76	130.00

END

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

DIMENSION= 3

REGIONS NUMBER=23    GROUPS NUMBER= 2

GREATEST NUMBER OF ITERATIONS= 99    MESH INTERVALS ON EACH AXIS= 2.0    PRECISION=0.001000

HARMONICS NUMBER ALONG X AXIS 3, Y AXIS 3, Z AXIS 3

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

REGION	X1	X2	Y1	Y2	Z1	Z2
1	-0.	17.76	-0.	17.76	15.00	70.00
2	-0.	17.76	-0.	17.76	70.00	115.00
3	-0.	17.76	17.76	35.52	15.00	115.00
4	17.76	35.52	0.	35.52	15.00	115.00
5	-0.	17.76	35.52	53.28	65.00	115.00
6	17.76	35.52	35.52	53.28	65.00	115.00
7	35.52	53.28	35.52	53.28	65.00	115.00
8	35.52	53.28	17.76	35.52	65.00	115.00
9	35.52	53.28	-0.	17.76	65.00	115.00
10	0.	20.00	35.52	53.28	15.00	65.00
11	20.00	35.52	35.52	53.28	15.00	65.00
12	35.52	53.28	35.52	53.28	15.00	65.00
13	35.52	53.28	40.00	53.28	15.00	65.00
14	35.52	53.28	0.	66.60	0.	15.00
15	0.	66.60	0.	66.60	0.	15.00
16	0.	53.28	53.28	66.60	15.00	130.00
17	53.28	66.60	-0.	66.60	15.00	130.00
18	0.	35.52	35.52	53.28	115.00	130.00
19	-0.	17.76	35.52	53.28	115.00	130.00
20	17.76	35.52	35.52	53.28	115.00	130.00
21	35.52	53.28	35.52	53.28	115.00	130.00
22	35.52	53.28	17.76	35.52	115.00	130.00
23	35.52	53.28	-0.	17.76	115.00	130.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

REGION	GROUP	ABS+REM	NU FISS	REM	DIFF
1	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
1	2	0.30000000E-01	0.57600000E-01	0.	0.47200000E-00
2	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
2	2	0.30000000E-01	0.57600000E-01	0.	0.47200000E-00
3	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
3	2	0.45000000E-01	0.86399999E-01	0.	0.47200000E-00
4	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
4	2	0.45000000E-01	0.86399999E-01	0.	0.47200000E-00
5	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
5	2	0.73329999E-01	0.11520000E-00	0.	0.47200000E-00
6	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
6	2	0.59999999E-01	0.11520000E-00	0.	0.47200000E-00
7	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
7	2	0.73329999E-01	0.11520000E-00	0.	0.47200000E-00
8	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
8	2	0.59999999E-01	0.11520000E-00	0.	0.47200000E-00
9	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
9	2	0.73329999E-01	0.11520000E-00	0.	0.47200000E-00
10	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
10	2	0.59999999E-01	0.11520000E-00	0.	0.47200000E-00
11	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
11	2	0.59999999E-01	0.11520000E-00	0.	0.47200000E-00
12	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
12	2	0.59999999E-01	0.11520000E-00	0.	0.47200000E-00
13	1	0.16400000E-01	-0.	0.13400000E-01	0.13800000E 01
13	2	0.59999999E-01	0.11520000E-00	0.	0.47200000E-00
14	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
14	2	0.80799999E-02	-0.	0.	0.32799999E-00
15	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
15	2	0.80799999E-02	-0.	0.	0.32799999E-00
16	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
16	2	0.80799999E-02	-0.	0.	0.32799999E-00
17	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
17	2	0.80799999E-02	-0.	0.	0.32799999E-00
18	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
18	2	0.80799999E-02	-0.	0.	0.32799999E-00
19	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
19	2	0.21410000E-01	-0.	0.	0.32799999E-00
20	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
20	2	0.80799999E-02	-0.	0.	0.32799999E-00
21	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
21	2	0.21410000E-01	-0.	0.	0.32799999E-00
22	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
22	2	0.80799999E-02	-0.	0.	0.32799999E-00
23	1	0.21179999E-01	-0.	0.21179999E-01	0.17500000E 01
23	2	0.21410000E-01	-0.	0.	0.32799999E-00

GROUP FISSION SPECTRUM INTEGRAL

1 0.09999999E 01  
2 -C.



LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

ITERATION	EIGENVALUE	
1	0.09999999E 01	0.49644380E-00
2	0.49644380E-00	0.74183071E 00
3	0.74183071E 00	0.97004877E 00
4	0.97004877E 00	0.11166508E 01
5	0.11166508E 01	0.12016275E 01
6	0.12016275E 01	0.12497320E 01
7	0.12497320E 01	0.12775425E 01
8	0.12775425E 01	0.12945069E 01
9	0.12945069E 01	0.13055769E 01
10	0.13055769E 01	0.13132913E 01
11	0.13132913E 01	0.13189674E 01
12	0.13189674E 01	0.13233110E 01
13	0.13233110E 01	0.13267194E 01
14	0.13267194E 01	0.13294312E 01
15	0.13294312E 01	0.13316027E 01
16	0.13316027E 01	0.13333444E 01
17	0.13333444E 01	0.13347395E 01
18	0.13347395E 01	0.13358544E 01

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

COEFFICIENTS (I,J,K)

I	J	K	GROUP 1	GROUP 2
1	1	1	0.73267044E-01	0.33083288E-01
2	1	1	-0.58433916E-03	0.22100689E-02
3	1	1	-0.16665738E-02	0.14849642E-02
1	2	1	-0.58433934E-03	0.22100686E-02
2	2	1	-0.87951773E-03	0.18206962E-02
3	2	1	-0.27947178E-03	0.59099490E-03
1	3	1	-0.16665744E-02	0.14849640E-02
2	3	1	-0.27947182E-03	0.59099491E-03
3	3	1	-0.27777516E-03	0.42675881E-03
1	1	2	-0.65255910E-02	-0.73608851E-02
2	1	2	-0.18290097E-02	-0.79769086E-03
3	1	2	-0.17021939E-03	-0.49873801E-04
1	2	2	-0.18290099E-02	-0.79769117E-03
2	2	2	-0.94622449E-03	-0.50456814E-03
3	2	2	-0.10667726E-03	-0.16158492E-03
1	3	2	-0.17021964E-03	-0.49873879E-04
2	3	2	-0.10667723E-03	-0.16158491E-03
3	3	2	0.32599941E-04	0.71037409E-04
1	1	3	-0.15592201E-01	0.39603641E-02
2	1	3	-0.23871005E-03	-0.26530964E-03
3	1	3	0.11537631E-03	-0.42929444E-03
1	2	3	-0.23871028E-03	-0.26530988E-03
2	2	3	0.14009012E-03	-0.16865993E-03
3	2	3	0.72145548E-04	-0.59358305E-04
1	3	3	0.11537631E-03	-0.42929453E-03
2	3	3	0.72145503E-04	-0.59358314E-04
3	3	3	0.19194584E-04	-0.10253776E-03

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 1

FLUX	X	Y	Z
0.15101518E-03	0.	0.	0.
0.14140619E-03	33.30	0.	0.
0.58409140E-11	66.60	0.	0.
0.14140619E-03	0.	33.30	0.
0.10555183E-03	33.30	33.30	0.
0.40723544E-11	66.60	33.30	0.
0.58409138E-11	0.	66.60	0.
0.40723544E-11	33.30	66.60	0.
0.10471574E-18	66.60	66.60	0.
0.24640434E-03	0.	0.	65.00
0.17930590E-03	33.30	0.	65.00
0.56599835E-11	66.60	0.	65.00
0.17930590E-03	0.	33.30	65.00
0.12567157E-03	33.30	33.30	65.00
0.43628832E-11	66.60	33.30	65.00
0.56599829E-11	0.	66.60	65.00
0.43628827E-11	33.30	66.60	65.00
0.12105113E-18	66.60	66.60	65.00
0.17892953E-12	0.	0.	130.00
-0.12562792E-11	33.30	0.	130.00
-0.18672131E-18	66.60	0.	130.00
-0.12562789E-11	0.	33.30	130.00
-0.73483607E-12	33.30	33.30	130.00
-0.72070681E-19	66.60	33.30	130.00
-0.18672135E-18	0.	66.60	130.00
-0.72070690E-19	33.30	66.60	130.00
-0.60681179E-26	66.60	66.60	130.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 2

FLUX	X	Y	Z
0.19068043E-03	0.	0.	0.
0.11094046E-03	33.30	0.	0.
0.54388341E-11	66.60	0.	0.
0.11094047E-03	0.	33.30	0.
0.78559316E-04	33.30	33.30	0.
0.36188840E-11	66.60	33.30	0.
0.54388344E-11	0.	66.60	0.
0.36188840E-11	33.30	66.60	0.
0.22672660E-18	66.60	66.60	0.
0.96431614E-04	0.	0.	65.00
0.32006880E-04	33.30	0.	65.00
0.17343390E-11	66.60	0.	65.00
0.32006878E-04	0.	33.30	65.00
0.21153676E-04	33.30	33.30	65.00
0.11652062E-11	66.60	33.30	65.00
0.17343388E-11	0.	66.60	65.00
0.11652061E-11	33.30	66.60	65.00
0.91932860E-19	66.60	66.60	65.00
0.42594790E-11	0.	0.	130.00
0.21322417E-11	33.30	0.	130.00
-0.25442729E-19	66.60	0.	130.00
0.21322420E-11	0.	33.30	130.00
0.17232946E-11	33.30	33.30	130.00
0.33740018E-19	66.60	33.30	130.00
-0.25442745E-19	0.	66.60	130.00
0.33740001E-19	33.30	66.60	130.00
-0.56805253E-26	66.60	66.60	130.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 1

REGION	FLUX	X	Y	Z
1	0.17499603E-03	-0.	-0.	15.00
1	0.17973069E-03	17.76	-0.	15.00
1	0.17973070E-03	-0.	17.76	15.00
1	0.17639082E-03	17.76	17.76	15.00
1	0.22612895E-03	-0.	-0.	70.00
1	0.21250058E-03	17.76	-0.	70.00
1	0.21250059E-03	-0.	17.76	70.00
1	0.19724476E-03	17.76	17.76	70.00
2	0.22612895E-03	-0.	-0.	70.00
2	0.21250058E-03	17.76	-0.	70.00
2	0.21250059E-03	-0.	17.76	70.00
2	0.19724476E-03	17.76	17.76	70.00
2	0.20605649E-04	-0.	-0.	115.00
2	0.17737231E-04	17.76	-0.	115.00
2	0.17737234E-04	-0.	17.76	115.00
2	0.15817875E-04	17.76	17.76	115.00
3	0.17973070E-03	-0.	17.76	15.00
3	0.17639082E-03	17.76	17.76	15.00
3	0.14881705E-03	-0.	35.52	15.00
3	0.13916782E-03	17.76	35.52	15.00
3	0.17737234E-04	-0.	17.76	115.00
3	0.15817875E-04	17.76	17.76	115.00
3	0.86777067E-05	-0.	35.52	115.00
3	0.89914255E-05	17.76	35.52	115.00
4	0.17973069E-03	17.76	0.	15.00
4	0.14881705E-03	35.52	0.	15.00
4	0.13916782E-03	17.76	35.52	15.00
4	0.10254639E-03	35.52	35.52	15.00
4	0.17737231E-04	17.76	0.	115.00
4	0.86777039E-05	35.52	0.	115.00
4	0.89914255E-05	17.76	35.52	115.00
4	0.65074619E-05	35.52	35.52	115.00
5	0.16812125E-03	-0.	35.52	65.00
5	0.15522844E-03	17.76	35.52	65.00
5	0.68114063E-04	-0.	53.28	65.00
5	0.64526062E-04	17.76	53.28	65.00
5	0.86777067E-05	-0.	35.52	115.00
5	0.89914255E-05	17.76	35.52	115.00
5	0.81320295E-06	-0.	53.28	115.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 1

REGION	FLUX	X	Y	Z
5	0.19732106E-05	17.76	53.28	115.00
6	0.15522844E-03	17.76	53.52	65.00
6	0.11082761E-03	35.52	53.52	65.00
6	0.64526062E-04	17.76	53.28	65.00
6	0.46777302E-04	35.52	53.28	65.00
6	0.89914255E-05	17.76	53.52	115.00
6	0.65074619E-05	35.52	53.52	115.00
6	0.19732106E-05	17.76	53.28	115.00
6	0.19027371E-05	35.52	53.28	115.00
7	0.11082761E-03	35.52	53.52	65.00
7	0.46777305E-04	35.52	53.52	65.00
7	0.46777302E-04	35.52	53.28	65.00
7	0.18908016E-04	35.52	53.28	65.00
7	0.65074619E-05	35.52	53.52	115.00
7	0.19027372E-05	35.52	53.52	115.00
7	0.19027371E-05	35.52	53.28	115.00
7	0.14269363E-06	35.52	53.28	115.00
8	0.15522844E-03	17.76	53.52	65.00
8	0.64526068E-04	17.76	53.52	65.00
8	0.11082761E-03	35.52	53.52	65.00
8	0.46777305E-04	35.52	53.52	65.00
8	0.89914250E-05	17.76	53.52	115.00
8	0.19732108E-05	17.76	53.52	115.00
8	0.65074619E-05	35.52	53.52	115.00
8	0.19027372E-05	35.52	53.28	115.00
9	0.16812125E-03	20.00	53.52	65.00
9	0.68114065E-04	20.00	53.52	65.00
9	0.15522844E-03	17.76	53.52	65.00
9	0.64526068E-04	17.76	53.52	65.00
9	0.86777039E-05	35.52	53.52	115.00
9	0.81320355E-06	35.52	53.52	115.00
9	0.89914250E-05	35.52	53.52	115.00
9	0.19732108E-05	35.52	53.28	115.00
10	0.14881705E-03	20.00	53.52	15.00
10	0.13622135E-03	20.00	53.52	15.00
10	0.66466483E-04	20.00	53.28	15.00
10	0.60963991E-04	20.00	53.28	15.00
10	0.16812125E-03	20.00	53.52	65.00
10	0.15145940E-03	20.00	53.52	65.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 1

REGION	FLUX	X	Y	Z
10	0.68114063E-04	0.	53.28	65.00
10	0.63241898E-04	20.00	53.28	65.00
11	0.13622133E-03	20.00	33.52	15.00
11	0.10254639E-03	33.52	33.52	15.00
11	0.60963991E-04	20.00	53.28	15.00
11	0.44859478E-04	33.52	53.28	15.00
11	0.15145940E-03	20.00	33.52	65.00
11	0.11082761E-03	33.52	33.52	65.00
11	0.63241898E-04	20.00	53.28	65.00
11	0.46777302E-04	33.52	53.28	65.00
12	0.14881705E-03	33.52	0.00	15.00
12	0.66466483E-04	33.52	0.00	15.00
12	0.89089929E-04	33.52	40.00	15.00
12	0.38441589E-04	33.52	40.00	15.00
12	0.16812125E-03	33.52	0.00	65.00
12	0.68114065E-04	33.52	0.00	65.00
12	0.95377324E-04	33.52	40.00	65.00
12	0.40005362E-04	33.52	40.00	65.00
13	0.89089929E-04	33.52	40.00	15.00
13	0.38441589E-04	33.52	40.00	15.00
13	0.44859478E-04	33.52	53.28	15.00
13	0.18408161E-04	33.52	53.28	15.00
13	0.95377324E-04	33.52	40.00	65.00
13	0.40005362E-04	33.52	40.00	65.00
13	0.46777302E-04	33.52	53.28	65.00
13	0.18908016E-04	33.52	53.28	65.00
14	0.15101518E-03	0.	0.	0.00
14	0.14219411E-03	33.00	0.	0.00
14	0.58409138E-11	0.	66.60	0.00
14	0.41093706E-11	33.00	66.60	0.00
14	0.17499603E-03	0.	0.	15.00
14	0.15719946E-03	33.00	0.	15.00
14	0.62585967E-11	0.	66.60	15.00
14	0.44310876E-11	33.00	66.60	15.00
15	0.14219411E-03	33.00	0.	-0.00
15	0.58409140E-11	66.60	0.	-0.00
15	0.41093706E-11	33.00	66.60	-0.00
15	0.10471574E-18	66.60	66.60	-0.00
15	0.15719946E-03	33.00	0.	15.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 1

REGION	FLUX	X	Y	Z
15	0.62585970E-11	66.60	0.	15.00
15	0.44310876E-11	33.00	66.60	15.00
15	0.11742143E-18	66.60	66.60	15.00
16	0.66466483E-04	0.	53.28	15.00
16	0.18408161E-04	53.28	53.28	15.00
16	0.62585967E-11	0.	66.60	15.00
16	0.15541947E-11	53.28	66.60	15.00
16	-0.12683519E-11	0.	53.28	130.00
16	-0.37321890E-12	53.28	53.28	130.00
16	-0.18672135E-18	0.	66.60	130.00
16	-0.47953974E-19	53.28	66.60	130.00
17	0.66466483E-04	53.28	-0.	15.00
17	0.62585970E-11	66.60	-0.	15.00
17	0.15541947E-11	53.28	66.60	15.00
17	-0.11742143E-18	66.60	66.60	15.00
17	-0.12683518E-11	53.28	-0.	130.00
17	-0.18672131E-18	66.60	-0.	130.00
17	-0.47953974E-19	53.28	66.60	130.00
17	-0.60681179E-26	66.60	66.60	130.00
18	0.20605649E-04	0.	-0.	115.00
18	0.86777039E-05	35.52	-0.	115.00
18	0.86777067E-05	0.	35.52	115.00
18	0.65074619E-05	35.52	35.52	115.00
18	-0.17892953E-12	0.	-0.	130.00
18	-0.13649528E-11	35.52	-0.	130.00
18	-0.13649524E-11	0.	35.52	130.00
18	-0.71429771E-12	35.52	35.52	130.00
19	0.86777067E-05	-0.	35.52	115.00
19	0.89914255E-05	17.76	35.52	115.00
19	0.81320295E-06	-0.	53.28	115.00
19	0.19732106E-05	17.76	53.28	115.00
19	-0.13649524E-11	-0.	35.52	130.00
19	-0.10157161E-11	17.76	35.52	130.00
19	-0.12683519E-11	-0.	53.28	130.00
19	-0.89082722E-12	17.76	53.28	130.00
20	0.89914255E-05	17.76	35.52	115.00
20	0.65074619E-05	35.52	35.52	115.00
20	0.19732106E-05	17.76	53.28	115.00
20	0.19027371E-05	35.52	53.28	115.00



LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 1

REGION	FLUX	X	Y	Z
20	-0.10157161E-11	17.76	35.52	130.00
20	-0.71429771E-12	35.52	35.52	130.00
20	-0.89082722E-12	17.76	53.28	130.00
20	-0.52357402E-12	35.52	53.28	130.00
21	0.65074619E-05	35.52	35.52	115.00
21	0.19027372E-05	53.28	35.52	115.00
21	0.19027371E-05	35.52	53.28	115.00
21	0.14269363E-06	53.28	53.28	115.00
21	-0.71429771E-12	35.52	35.52	130.00
21	-0.52357397E-12	53.28	35.52	130.00
21	-0.52357402E-12	35.52	53.28	130.00
21	-0.37321890E-12	53.28	53.28	130.00
22	0.89914250E-05	35.52	17.76	115.00
22	0.19732108E-05	53.28	17.76	115.00
22	0.65074619E-05	35.52	35.52	115.00
22	0.19027372E-05	53.28	35.52	115.00
22	-0.10157164E-11	35.52	17.76	130.00
22	-0.89082720E-12	53.28	17.76	130.00
22	-0.71429771E-12	35.52	35.52	130.00
22	-0.52357397E-12	53.28	35.52	130.00
23	0.86777039E-05	35.52	-0.	115.00
23	0.81320354E-06	53.28	-0.	115.00
23	0.89914250E-05	35.52	17.76	115.00
23	0.19732108E-05	53.28	17.76	115.00
23	-0.13649528E-11	35.52	-0.	130.00
23	-0.12683518E-11	53.28	-0.	130.00
23	-0.10157164E-11	35.52	17.76	130.00
23	-0.89082720E-12	53.28	17.76	130.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 2

REGION	FLUX	X	Y	Z
1	0.18214360E-03	-0.	-0.	15.00
11	0.14880750E-03	17.76	-0.	15.00
11	0.14880750E-03	-0.	17.76	15.00
11	0.12727571E-03	17.76	17.76	15.00
11	0.69003339E-04	-0.	-0.	70.00
11	0.60817746E-04	17.76	-0.	70.00
11	0.60817742E-04	-0.	17.76	70.00
11	0.44698527E-04	17.76	17.76	70.00
11	0.89003339E-04	-0.	-0.	70.00
22	0.60817746E-04	17.76	-0.	70.00
22	0.60817742E-04	-0.	17.76	70.00
22	0.44698527E-04	17.76	17.76	70.00
22	0.26028270E-04	-0.	-0.	115.00
22	0.21035527E-04	17.76	-0.	115.00
22	0.21035528E-04	-0.	17.76	115.00
22	0.17943998E-04	17.76	17.76	115.00
33	0.14880750E-03	-0.	17.76	15.00
33	0.12727571E-03	17.76	17.76	15.00
33	0.96439879E-04	-0.	35.52	15.00
33	0.87312108E-04	17.76	35.52	15.00
33	0.21035528E-04	-0.	17.76	115.00
33	0.17943998E-04	17.76	17.76	115.00
33	0.10768490E-04	-0.	35.52	115.00
33	0.10765652E-04	17.76	35.52	115.00
44	0.14880750E-03	17.76	0.	15.00
44	0.96439870E-04	35.52	0.	15.00
44	0.87312108E-04	17.76	35.52	15.00
44	0.65080571E-04	35.52	35.52	15.00
44	0.21035527E-04	17.76	0.	115.00
44	0.10768489E-04	35.52	0.	115.00
44	0.10765652E-04	17.76	35.52	115.00
44	0.81117304E-05	35.52	35.52	115.00
55	0.29260325E-04	-0.	35.52	65.00
55	0.25756470E-04	17.76	35.52	65.00
55	0.16130795E-04	-0.	53.28	65.00
55	0.13640022E-04	17.76	53.28	65.00
55	0.10768490E-04	-0.	35.52	115.00
55	0.10765652E-04	17.76	35.52	115.00
55	0.30547956E-05	-0.	53.28	115.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 2

REGION	FLUX	X	Y	Z
5	0.38608567E-05	17.76	53.28	115.00
6	0.25756470E-04	17.76	35.52	65.00
6	0.19374772E-04	35.52	35.52	65.00
6	0.13640022E-04	17.76	53.28	65.00
6	0.10387407E-04	35.52	53.28	65.00
6	0.10765652E-04	17.76	35.52	115.00
6	0.81117304E-05	35.52	35.52	115.00
6	0.38608567E-05	17.76	53.28	115.00
6	0.30741519E-05	35.52	53.28	115.00
7	0.19374772E-04	35.52	35.52	65.00
7	0.10387408E-04	53.28	35.52	65.00
7	0.10387407E-04	35.52	53.28	65.00
7	0.62437543E-05	53.28	53.28	65.00
7	0.81117304E-05	35.52	35.52	115.00
7	0.30741522E-05	53.28	35.52	115.00
7	0.30741519E-05	35.52	53.28	115.00
7	0.63036169E-06	53.28	53.28	115.00
8	0.25756471E-04	35.52	17.76	65.00
8	0.13640023E-04	53.28	17.76	65.00
8	0.19374772E-04	35.52	35.52	65.00
8	0.10387408E-04	53.28	35.52	65.00
8	0.10765652E-04	35.52	17.76	115.00
8	0.38608572E-05	53.28	17.76	115.00
8	0.81117304E-05	35.52	35.52	115.00
8	0.30741522E-05	53.28	35.52	115.00
9	0.29260326E-04	35.52	-0.	65.00
9	0.16130795E-04	53.28	-0.	65.00
9	0.25756471E-04	35.52	17.76	65.00
9	0.13640023E-04	53.28	17.76	65.00
9	0.10768489E-04	35.52	-0.	115.00
9	0.30547959E-05	53.28	-0.	115.00
9	0.10765652E-04	35.52	17.76	115.00
9	0.38608572E-05	53.28	17.76	115.00
10	0.96439879E-04	0.	35.52	15.00
10	0.85077378E-04	20.00	35.52	15.00
10	0.49145594E-04	0.	53.28	15.00
10	0.41515268E-04	20.00	53.28	15.00
10	0.29260325E-04	0.	35.52	65.00
10	0.24994282E-04	20.00	35.52	65.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 2

REGION	FLUX	X	Y	Z
10	0.16130795E-04	0.	53.28	65.00
10	0.13155175E-04	20.00	53.28	65.00
11	0.85077378E-04	20.00	35.52	15.00
11	0.65080571E-04	35.52	35.52	15.00
11	0.41515268E-04	35.52	53.28	15.00
11	0.31926542E-04	35.52	53.28	15.00
11	0.24994282E-04	20.00	35.52	65.00
11	0.19374772E-04	35.52	35.52	65.00
11	0.13155175E-04	20.00	53.28	65.00
11	0.10387407E-04	35.52	53.28	65.00
12	0.96439870E-04	35.52	0.00	15.00
12	0.49145992E-04	35.52	0.00	15.00
12	0.57873596E-04	35.52	40.00	15.00
12	0.28966320E-04	53.28	40.00	15.00
12	0.29260336E-04	53.28	0.00	65.00
12	0.16130795E-04	53.28	0.00	65.00
12	0.17568383E-04	35.52	40.00	65.00
12	0.96775158E-04	35.52	40.00	65.00
13	0.57873596E-04	35.52	40.00	15.00
13	0.28966320E-04	53.28	40.00	15.00
13	0.31926542E-04	35.52	53.28	15.00
13	0.17568383E-04	35.52	53.28	15.00
13	0.17568383E-04	35.52	40.00	65.00
13	0.96775158E-04	35.52	40.00	65.00
13	0.10387407E-04	35.52	53.28	65.00
13	0.62437443E-04	53.28	53.28	65.00
14	0.19068043E-03	0.00	0.00	0.00
14	0.11178622E-03	33.00	0.00	0.00
14	0.54388834E-03	0.00	66.60	0.00
14	0.36370677E-03	33.00	66.60	0.00
14	0.18214360E-03	0.00	0.00	15.00
14	0.10298958E-03	33.00	0.00	15.00
14	0.51299899E-03	0.00	66.60	15.00
14	0.33953132E-03	33.00	66.60	15.00
15	0.11178622E-03	33.00	0.00	0.00
15	0.54388834E-03	0.00	66.60	0.00
15	0.36370677E-03	33.00	66.60	0.00
15	0.22672660E-03	66.60	66.60	0.00
15	0.10298958E-03	33.00	0.00	15.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 2

REGION	FLUX	X	Y	Z
15	0.51299891E-11	66.60	0.	15.00
15	0.33953132E-11	33.00	66.60	15.00
15	0.22043287E-18	66.60	66.60	15.00
16	0.49145594E-04	0.	53.28	15.00
16	0.17227139E-04	53.28	53.28	15.00
16	0.51299895E-11	0.	66.60	15.00
16	0.18981030E-11	53.28	66.60	15.00
16	0.31121477E-12	0.	53.28	130.00
16	-0.14489065E-13	53.28	53.28	130.00
16	-0.25442745E-19	0.	66.60	130.00
16	-0.23669297E-19	53.28	66.60	130.00
17	0.49145592E-04	53.28	-0.	15.00
17	0.51299891E-11	66.60	-0.	15.00
17	0.18981030E-11	53.28	66.60	15.00
17	0.22043287E-18	66.60	66.60	15.00
17	0.31121479E-12	53.28	-0.	130.00
17	-0.25442729E-19	66.60	-0.	130.00
17	-0.23669297E-19	53.28	66.60	130.00
17	-0.56805253E-26	66.60	66.60	130.00
18	0.26028270E-04	0.	-0.	115.00
18	0.10768489E-04	35.52	-0.	115.00
18	0.10768490E-04	0.	35.52	115.00
18	0.81117304E-05	35.52	35.52	115.00
18	0.42594790E-11	0.	-0.	130.00
18	0.18778288E-11	35.52	-0.	130.00
18	0.18778291E-11	0.	35.52	130.00
18	0.14904997E-11	35.52	35.52	130.00
19	0.10768490E-04	-0.	35.52	115.00
19	0.10765652E-04	17.76	35.52	115.00
19	0.30547956E-05	-0.	53.28	115.00
19	0.38608567E-05	17.76	53.28	115.00
19	0.18778291E-11	-0.	35.52	130.00
19	0.19739387E-11	17.76	35.52	130.00
19	0.31121477E-12	-0.	53.28	130.00
19	0.58592673E-12	17.76	53.28	130.00
20	0.10765652E-04	17.76	35.52	115.00
20	0.81117304E-05	35.52	35.52	115.00
20	0.38608567E-05	17.76	53.28	115.00
20	0.30741519E-05	35.52	53.28	115.00

LOUISE III

TEST REACTOR 2ND GEOMETRIC SUBDIVISION

GROUP 2

REGION	FLUX	X	Y	Z
20	0.19739387E-11	17.76	35.52	130.00
20	0.14904997E-11	35.52	35.52	130.00
20	0.58592673E-12	17.76	53.28	130.00
20	0.48315988E-12	35.52	53.28	130.00
21	0.81117304E-05	35.52	35.52	115.00
21	0.30741519E-05	53.28	35.52	115.00
21	0.30741519E-05	35.52	53.28	115.00
21	0.63036169E-06	53.28	53.28	115.00
21	0.14904997E-11	35.52	35.52	130.00
21	0.48315993E-12	53.28	35.52	130.00
21	0.48315988E-12	35.52	53.28	130.00
21	0.14489065E-13	53.28	53.28	130.00
22	0.10765652E-04	35.52	17.76	115.00
22	0.38608572E-05	53.28	17.76	115.00
22	0.81117304E-05	35.52	35.52	115.00
22	0.30741522E-05	53.28	35.52	115.00
22	0.19739386E-11	35.52	17.76	130.00
22	0.58592680E-12	53.28	17.76	130.00
22	0.14904997E-11	35.52	35.52	130.00
22	0.48315993E-12	53.28	35.52	130.00
23	0.10766848E-04	35.52	35.52	115.00
23	0.30547959E-05	53.28	-0.	115.00
23	0.10765652E-04	35.52	17.76	115.00
23	0.38608572E-05	53.28	17.76	115.00
23	0.18778288E-11	35.52	-0.	130.00
23	0.31121479E-12	53.28	-0.	130.00
23	0.10739386E-11	35.52	17.76	130.00
23	0.58592680E-12	53.28	17.76	130.00



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