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ATTITUDE CHANGE EXHIBITED BY LONGWOOD COLLEGE STUDENTS WHEN EXPOSED TO A PROGRAM STIMULUS

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by

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CHAPTER I

INTRODUCTION

The importance of the residence hall and its program of activities on the attitudes of college students has been acknowledged by a number of researchers. Phillip Coombs' thesis is that the degree of satisfaction with the output of the educational system determines the input to the system (Coombs, 1968). In other words, attitudes of college students toward the myriad of academic, interpersonal, environmental and physical factors comprising what we know as an "educational institution" determine the level of involvement of the student in the college. Coombs raises the question of a goal conflict between faculty, administrators, students, boards of visitors, and public with each of these groups perceiving different needs and functions of residence halls and associated programming. Each group operates from a different perspective; each views the residence hall as a means to a different end.

While general agreement usually exists regarding overall college purposes and the major thrusts of an academic program, the above groups show little unanimity regarding the functions of the residence hall and its impact upon the total college atmosphere. As Elizabeth Greenleaf has pointed out, "Not all activities need take place within the residence halls, but students can be encouraged and challenged there to participate in total campus programs (Greenleaf, 1969, p. 68)."

A review of the literature has failed to uncover a study which specifically attempts to measure attitudinal change toward the college

environment by a sample of college students after the introduction of a program stimulus such as residence hall programming. Prior research has mainly dealt with five categories:

1. General student perceptions of their environment with no attempt to prove a connection between any specific object, event, or action and this environmental perception.

2. The students' motivations and environmental background and how this background is manifested and modified in college.

3. The purposes of residence hall living and the benefits and drawbacks of differing and non-voluntary physical arrangements, roommate pairing, and interest groupings.

4. The effects of voluntary peer grouping into fraternities, sororities and other organizations.

5. The effect of the "group" itself on attitudes.

The most definitive statement on residence halls remains Harold Riker's monograph, College Housing as Learning Centers. Riker provides a basic discussion of the ways in which college residence halls shape the perceptions and attitudes of students. Although he deals mainly with physical, physiological and staffing variables, he points out that "learning [is not just] a product of the classroom, occurring solely as the result of action and reaction among the teacher, the student and their subject (Riker, 1965, p. 2)." He estimates that seventy-five to ninety-five hours per week are spent in the residence halls versus fifteen to eighteen hours in the classroom environment (Riker, 1965).

Riker was one of the first to establish the connection between environment and behavior, and he then makes the natural transition to the methods by which the environment may be manipulated. He points out that,

beyond the provision of identity and personal security, other stimuli exist which affect student perceptions. Yet, he stops short of addressing affects of specific programming and deals only with staffing variations, traditional operational and counseling programs, and physical maintenance and arrangement options (Riker, 1965).

Riker and others recognized the relationship between the environmental influences of residence hall living and the behavior of the individual and, more importantly, that enrichment of the environment enhances the students' intellectual activity, i.e., learning is a total process of the college community (Chickering, 1967; Riker, 1965). In addition, these monographs provided valuable related information on program suggestions for residence halls and methods to solicit faculty participation and student support.

With Riker's work as a foundation, other researchers began to deal with the need for informal, extra-class programming as a developmental stimulus for the college student. Lawrence A. Pervin pointed to the correlation between the student's informal learning and the affect such learning has upon him as a person (Pervin, 1967). J. R. Clarcq stressed the purpose of the residence hall as a means to bridge the curricular and co-curricular gulf in order to promote the concept of education as the total of all student experience (Clarcq, 1970). These researchers raised and refined the issue of the residence hall as an educational force which demanded attention.

Other research relevant to this study was performed by Don E. Williams and Robert R. Reilley who studied roommate compatability, confirming Pace's 1970 finding that dissatisfied roommates are not as academically successful as compatable roommates. More relevant is their finding that students view the "residence hall environment and the total university environment in much the same way. A comprehensive residence hall program may improve

students' perceptions of the total university environment (Williams and Reilley, 1972, p. 407)." This confirmed the independent findings of C. G. Eberly (1968) and J. A. Centra (1968).

Douglas R. Whitney, David W. Perrin, Robert M. Casse, Jr., and Alvin D. Albertus studied residence hall policies, concluding that there was virtually no affect on academic achievement by variations in the policy options or rule variations under which residence hall students live (Whitney, et. al., 1973). This finding focuses more attention on programming as a stimulus for attitude and performance variations by removing governance policy and rule structure as a valid stimulus for attitude modification. Brian M. Gifford added additional creedence to this conclusion by establishing that a residence governing structure was not effective unless coupled with participation by students (Gifford, 1974). In other words, a program stimulus must be operating to result in attitudinal change.

Other researchers have also established the residence hall as a force to be reckoned with in the college environment and have examined this force. Elizabeth Greenleaf recommended that program emphases be threefold, ". . . orientation to college and the intellectual world, development of activities to provide students with learning experiences, and the integration of residence halls into the academic community (Greenleaf, 1969, p. 67)." In short, residence hall programming is a method of building student support for the entities which comprise a college. Kenneth L. Stoner dealt with environmental factors such as health, safety, citizenship, and recreational opportunities. He states, "A student who resides within a university residence hall must have maximum opportunity personally to identify with this entity not only as a housing facility, but as an

integral part of the total college or university (Stoner, 1969, p. 74)." John E. Shay, Jr., continues, "the primary emphasis in dealing with students should be . . . on getting them to view the residence hall as a social system and not merely as a place to reside (Shay, 1969, p. 77)." Cohesion, properly manipulated, can provide for attitudinal changes when individuality and aloneness fostered by most residence hall structures cannot.

This researcher also reviewed studies specifically dealing with the programming stimulus in order to collect information on program types and methods of implementation. Most helpful was A Model for Program Development by Katherine H. Speare. She suggests that, in order to create an atmosphere which students find exciting and fulfilling, "Programming may be defined as broadly as 'any goal directed behavior' or as specifically as 'a specific behavior which results from a specific planned activity.' (Speare, 1971, p. 76)." Raymond O. Murphy found "students placed education program effort lowest in their scale of desired activities within the residence halls. . . . Social and recreational programs were distinctly higher choices (Murphy, 1969, p. 62)." Students tend to organize their activities with a minimum of intellectual content, thus automatically defeating the concept that residence halls are anything but retreats from the learning environment of college.

To summarize, researchers have established that the residence hall deserves consideration as an entity which affects students. The students' view of the residence hall environment colors the students' view of the college as a whole. Rule structures and governance types have little effect on academic achievement. Research has not dealt specifically with other performance and attitudinal variables. The majority of research to

date has not been attitudinal but has dealt with grouping, physical facilities, and programs of security and health of students.

Relevant to this study, particularly, are the speculations by prior researchers that residence hall programming may improve student perceptions of the total college environment and may build support for all entities which comprise a college. With these speculations in mind, the residence hall programming schedule used as a stimulus in this research design was established.

With the prior research as a foundation, an experiment was designed to test the affect of a residence hall program stimulus on five measures of student attitudes. The five measures dealt with attitudes towards self, social atmosphere, dormitory, cooperation and communication, and academic atmosphere. Attitudes were measured at the beginning and the end of the fall semester. The experiment also tested for a change in the students' perception of two words: dormitory and residence hall. This represented an attempt to determine if either term was a more positive reference to the students' living space. The program stimulus was in the form of events such as concerts, crafts, interaction sessions with faculty and administrators, and "how-to" learning sessions such as bicycle repair or photography. A total of eighteen events comprised the semester's program. This residence hall program was one semester in duration, took place entirely in the residence halls, and had not occurred on campus before. Participation was open to all students on a voluntary basis. (See page 78 for program listings.)

CHAPTER II

METHOD

Subjects. Subjects for this study were chosen from those enrolled and present on the Longwood College campus for the fall, 1972, session. Therefore, student teachers were eliminated from the sample. Subjects were selected randomly using a table of random numbers matched against a roster of each class provided by the College. The number of subjects chosen from each class was determined on the basis of the percentage of the entire student body represented by the particular class. Therefore, no group outvalues another as would be the case if a fixed number of subjects were assigned from each class. Students withdrawn or not present on the campus were removed as were student teachers and were not replaced by others. A random sample of the student body was selected. Table 1 indicates the distribution of subjects chosen for this study.

Materials. Other researchers have employed differing techniques to assess the college environment. Stephan H. Scott employed the Personal Orientation Inventory (POI) to measure the growth of student leadership as contrasted to the general student population (Scott, 1975). Carl L. Harshman and Ellen F. Harshman developed The Residence Counselor Evaluation Scale (RCES) to evaluate residence staff performance and effectiveness (Harshman and Harshman, 1974). M. P. Smail developed the University Residence Environment Scale (URES) to measure student perceptions of student-student and student-staff relationships (Smail, 1974). Most relevant to this research was the use of Stern's College Characteristics Index (CCI) by James R. Shoemer and William A. McConnel. Shoemer and McConnel employed the CCI to measure perceptions of the prevailing atmosphere or climate of the campus and then used a t-test method to compare pre- and post-tests

TABLE 1

Class	Number in Sample	Percentage of Class
Freshmen	160	29.68
Sophomores	180	28.13
Juniors	173	29.32
*Seniors	59	28.00
	572	

*Student teachers, a large portion of the senior class were not on campus, and therefore, not eligible to participate according to the research design.

(Schoemer and McConnel, 1970). For the purposes of this study, none of these methods appeared satisfactory due to limitations imposed by their forms as well as the desire of this researcher to measure variables specific to Longwood College.

In view of the fact that there have been no satisfactory standardized measuring devices developed in this area, it was decided to employ a more generalized measure of attitudes. One of the most commonly used devices for attitude measurement is the Semantic Differential (Snider and Osgood, 1969). As developed by Osgood, the Semantic Differential functions as a rating procedure for the development of meaning. Bipolar adjectives (such as active-passive and good-bad) are employed with an intervening seven point scale. (See Appendix A for copies of the original instruments.)

This technique was chosen because of its easy adaptability to the needs of the researcher. Concepts could be determined according to their relevance to the Longwood College environment and the bi-polar adjectives could also be selected by the researcher so as to be as appropriate as possible. The Semantic Differential rating procedure was also chosen because the concepts to be measured were actually attitudes toward key words as they related to the college environment. This instrument, more than any other, allowed this researcher to quantify the level of meaning attached to each concept by student subjects.

Design. For each of five concepts; self, social atmosphere, dormitory, cooperation and communication, academic atmosphere, and for the word comparisons (residence hall and dormitory), ten pairs of bi-polar adjectives were used. An identical ten pairs were used in each of the five subcategories which formed each major concept. Pairs in each case were selected to elicit a range of responses relating to the concept in

question. In summary, five categories were to be measured--self (1), social atmosphere (2), dormitory (3), cooperation and communication (4), academic atmosphere (5), and in addition, measurement of the connotative value of the words residence hall and dormitory.

The concept of "self" was designed to measure the student's understanding of himself and his relation to and participation in the college environment. "Social atmosphere" studied student perception of activities offered and the adequacy and uniqueness of these activities. The concept "dormitory" attempted to measure specific perceptions of the living environment of the student. Emphasis was placed upon the students' feeling of control over his environment as modified by residence hall programming. "Cooperation and communication" studied the relationships between students, peers, faculty, and administration. Finally, "academic atmosphere" measured the relationship between residence hall programming and academic pervasiveness.

The design consisted of a pre-test and a post-test. For analysis, subjects were divided into three groups: the pre-test group consisting of all subjects completing the pre-test; the non-participant post-test group consisting of all subjects completing the post-test and who did not participate in the residence hall programming; and the participant post-test group consisting of all subjects completing the post-test and who participated in the residence hall programming. In addition, the participant post-test and non-participant post-test groups were compared.

Procedure. Administration was by appointment. Small group administration was the norm. The experimenter did not administer the test. Students, not among the sample, unaware of the specific purposes of the test, were instructed in the technique and administration of the test.

Scoring was performed by students not associated with Longwood College or the test administration.

Both pre-test and post-test were administered and scored in the same fashion. The pre-test was administered during the third week of classes following the beginning of the fall, 1972, term. It was felt this would be sufficient time for the students to regain the routine of college life. The post-test was administered during the final two weeks of the first semester. It was felt that this minimized the "learning effect" caused by administering an identical test as the post-test. In addition, the number of pairs and the range of responses possible also should have mediated against this effect.

It was not possible to keep track of and pair an individual respondent's pre- and post-test. A record was kept of who participated in the pre-test, but their specific questionnaire was not coded so that the post-test could be matched to it. Consequently, results deal with the attitudinal changes exhibited by the total group taking both tests in relation to the dependent variables of the instrument. Only those in the sample who participated in the pre-test were allowed to have the post-test administered to them.

Each individual pre- and post-test was scored using the following criteria. Only clearly marked instruments were regarded as valid. Respondents who marked on the vertical lines instead of within the spaces thereby invalidated their questionnaires. Blank pages or sections of pages were also grounds for discarding the instrument. This researcher felt that a sufficient percentage of the population was sampled so that it was not necessary to employ a technique to validate these discarded instruments.

In scoring, each of the seven spaces on the semantic differential scale was assigned a number with (1) denoting that space closest to the adjective on the left and (7) denoting that space closest to the adjective on the right. The left adjective was the negative adjective; the right, the positive.

Of a sample of 572, 335 usable pre-tests (58.57 percent) were found and of the 335 who were administered the pre-test, 275 usable post-tests (82.09 percent or 48.08 percent of the original sample of 572) were found. Because of the size of the original sample, it is felt that the results continue to have validity. The post-test also contained a question requiring a response regarding whether or not a respondent participated in the residence hall programming offered. Of the post-test group of 275, 172 (62.55 percent) participated in one or more programs and 103 (37.45 percent) did not. (See Appendix B for the raw data.)

CHAPTER III

RESULTS

Means and standard deviations were calculated for the scores of the pre-test subjects, the participant post-test subjects and for the non-participant post-test subjects. Table 2 displays the results. In addition, t-tests were performed comparing the five major categories of the pre-test with the participant post-test. Participant post-tests were also compared with non-participant post-tests. This second comparison was performed to determine whether changes exhibited were due only to the existence of residence hall programming or exhibited by all subjects. Results of these analyses are displayed in Table 3.

Generally, sufficient differences were found in the pre-test and participant post-test scores to indicate that an attitudinal change did occur due to the residence hall program stimulus. However, the comparison of the participant post-test and non-participant post-test scores indicates that this attitudinal change of the participants in the programming stimulus was not as significant as the first comparison would indicate. Obviously, some attitudinal change occurred within the non-participant group also.

The concept of "self", (category I) was designed to measure the student's view of himself and his relation to the college environment. The pre-test--post-test comparison of this category yielded a t-value of 0.606, a condition of non-significance. In addition, a t-value of 2.347 for the post-test comparisons suggests a slight regression may have occurred among the non-participant subjects or that those with a lower score regarding their view of the relationship between themselves and their environment did not participate. It can also be speculated that the

T A B L E 2

MEANS AND STANDARD DEVIATIONS BY CATEGORY
FOR PRE-TESTS AND POST-TEST NON-PARTICIPANT AND PARTICIPANT GROUPS

Category		All Pre-tests	Non-Participant Post-tests	Participant Post-tests
Self	Mean	3.515314	3.325800	3.463129
	S.D.	0.560400	0.680214	0.585614
Social Atmosphere	Mean	2.631214	3.082943	3.196014
	S.D.	0.466286	0.613086	0.524114
Dormitory	Mean	3.428443	3.224829	3.241943
	S.D.	0.611971	0.590414	0.564300
Cooperation and Communication	Mean	2.838214	3.394457	3.424500
	S.D.	0.518429	0.604414	0.623771
Academic Atmosphere	Mean	3.305414	3.286271	3.275743
	S.D.	0.526629	0.514814	0.586329

TABLE 3

T-TESTS FOR FIVE ATTITUDE CATEGORIES

Category	Pre-Test vs. Participant Post-Test	Non-Participant Post-Test vs. Participant Post-Test
Self	0.606	2.347*
Social Atmosphere	11.869**	2.220*
Dormitory	3.001**	1.149
Cooperation and Communication	10.608**	1.275
Academic Atmosphere	0.230	0.837

* $p < .05$
** $p < .01$

acts of planning and initiating have greater implications for the "self" category than simple participation. The non-significant result would support this conclusion.

The second category, "social atmosphere" was found to be significant at the .01 level when pre-test and participant post-test were compared. In addition, a comparison of the participant post-test and the non-participant post-test was also found to be significant at the .05 level. This finding reinforces the magnitude of the change found in this category. This category measured the student's perception of activity on the campus and was expected to be the most highly significant finding due to the social and activity orientation of the stimulus. This was, in fact, the case.

Also expected to be highly significant for the same reasons was category IV, "cooperation and communication." This category measured the perception of interaction occurring between students, their peers and faculty and administration. The pre-test--participant post-test t-value here was 10.68 which was significant at the .01 level. However, both participant and non-participant attitudes increased to the same extent. This indicates that the residence hall programming was not responsible for this improvement.

Category III, "dormitory" measured subject perception of the living space and was also found to be significant at the .01 level with a t-value of 3.001. However, this significant difference was found only when comparing pre-test with participant post-test. No significant difference was found for this category when participant and non-participant post-test were compared. The program stimulus was held in the dorms and was designed as a method to improve student views of their living space.

Yet, as Table 2 indicates, student views deteriorated over the period studied. The residence hall programming had no positive affect. Category V, "academic atmosphere," was also not affected by the residence hall programming. This result was expected due to the non-academic nature of programs offered.

Finally, it was found that the post-test indicated essentially no connotative difference between the words residence hall and dormitory among students surveyed. The mean score for "residence hall" was 0.662597 while the mean score for "dormitory" was 0.6701818..

CHAPTER IV

DISCUSSION

Prior research has indicated that residence hall programming should result in student attitude change across a broad range of measures of the college environment. A student who had a meaningful, coherent, and positive experience in the residence halls should also have a positive attitude toward academic atmosphere, peer relationships, faculty-student interaction, and administration-student relationships. This study was designed to test these assumptions by measuring attitude change caused by a residence hall programming stimulus.

It was apparent that the program stimulus measured is effective in modifying student attitudes toward the college environment. The stimulus employed in this experiment was heavily biased toward social activities. As noted, other researchers have suggested a more generalized result of such programming. This research raises doubts about these conclusions. Social programming did not produce attitude changes in other areas. Yet, the significance levels obtained suggest that such stimuli in a program more closely aligned with goals in specific areas should result in greater correlations between programs and attitude changes.

This study measured the general effect of residence hall programming upon the subject. Specific categories of students, such as class designations and other similar factors, were not analyzed. Changes in student attitudes were produced only in those areas relevant to the type of programming offered.

Because of the level of significance shown by the attitudinal change exhibited by participating Longwood College students, it is recommended that residence hall programming be continued and/or reinitiated. This

researcher feels that such a program will be most beneficial in terms of positive attitudes toward the concepts studied if an effort is made to establish in advance specific goals for the program which relate to the long- and short-term goals on the institution--the formation of positive attitudes has implications for the students' productivity as well as for the students' relationship to and view of the institution upon graduation.

This researcher recommends additional research to determine, under more controlled conditions of administration, individual respondent attitude changes. Such a follow-up instrument perhaps should be cross-referenced with biographical information on each student collected by the college. Also, it may be useful to repeat the experiment over time to determine whether the effect is moderated (as would be expected) by the on-going nature of such a residence hall program. Finally, as this research has pointed out, the programming should be designed around specific goals for each area of interest.

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APPENDIX A

PRE-TEST

CTIONS: We wish to measure the meaning of certain words and phrases. This ot a test and there are no correct or incorrect answers. Rate the words or ses at the top of each set of scales in terms of the meanings they have for

Place an X in the space which most nearly fits the meaning of the word or se at the top of the page as you actually think they are.

mple:

cowardly	/ X / / / / /	brave
bad	/ / / X / / /	good
passive	/ / X / / / /	active

dormitory as a social-center

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

student interdisciplinary interests

unimportant	/ / / / / /	important
changeable	/ / / / / /	stable
impersonal	/ / / / / /	personal
stale	/ / / / / /	fresh
shallow	/ / / / / /	deep
tense	/ / / / / /	relaxed
unpleasant	/ / / / / /	pleasant
static	/ / / / / /	dynamic
dull	/ / / / / /	creative
constrained	/ / / / / /	free

"social me"

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

social adequacy

dull	/ / / / / / /	sharp
shallow	/ / / / / / /	deep
placid	/ / / / / / /	vigorous
stale	/ / / / / / /	fresh
expendible	/ / / / / / /	valuable
uniform	/ / / / / / /	diverse
insufficient	/ / / / / / /	sufficient
chaotic	/ / / / / / /	ordered
non-conforming	/ / / / / / /	conforming
impotent	/ / / / / / /	powerful

dormitory life-space

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

weekend activity

dull	/ / / / / /	sharp
shallow	/ / / / / /	deep
placid	/ / / / / /	vigorous
stale	/ / / / / /	fresh
expendible	/ / / / / /	valuable
uniform	/ / / / / /	diverse
insufficient	/ / / / / /	sufficient
chaotic	/ / / / / /	ordered
non-conforming	/ / / / / /	conforming
impotent	/ / / / / /	powerful

academic flexibility

unimportant	/ / / / / /	important
changeable	/ / / / / /	stable
impersonal	/ / / / / /	personal
stale	/ / / / / /	fresh
shallow	/ / / / / /	deep
tense	/ / / / / /	relaxed
unpleasant	/ / / / / /	pleasant
static	/ / / / / /	dynamic
dull	/ / / / / /	creative
constrained	/ / / / / /	free

self-acceptance of circumstances

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

student-faculty involvement

belligerent	/ / / / / /	peaceful
inconsistant	/ / / / / /	consistant
bottom	/ / / / / /	top
unfair	/ / / / / /	fair
passive	/ / / / / /	active
superficial	/ / / / / /	profound
flippant	/ / / / / /	earnest
static	/ / / / / /	ynamic
non-directional	/ / / / / /	directional
expendable	/ / / / / /	valuable

academic creativity

unimportant	/ / / / / /	important
changeable.	/ / / / / /	stable
impersonal	/ / / / / /	personal
stale	/ / / / / /	fresh
shallow	/ / / / / /	deep
tense	/ / / / / /	relaxed
unpleasant	/ / / / / /	pleasant
static	/ / / / / /	dynamic
dull	/ / / / / /	creative
constrained	/ / / / / /	free

dormitory as a learning-center

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

motivation

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

student-faculty communication

belligerent	/ / / / / /	peaceful
inconsistant	/ / / / / /	consistant
bottom	/ / / / / /	top
unfair	/ / / / / /	fair
passive	/ / / / / /	active
superficial	/ / / / / /	profound
flippant	/ / / / / /	earnest
static	/ / / / / /	dynamic
non-directional	/ / / / / /	directional
expendable	/ / / / / /	valuable

extension of academics into residence halls

unimportant	/ / / / / /	important
changeable	/ / / / / /	stable
impersonal	/ / / / / /	personal
stale	/ / / / / /	fresh
shallow	/ / / / / /	deep
tense	/ / / / / /	relaxed
unpleasant	/ / / / / /	pleasant
static	/ / / / / /	dynamic
dull	/ / / / / /	creative
constrained	/ / / / / /	free

dormitory

tense	/ / / / / /	relaxed
restrictive	/ / / / / /	free
negative	/ / / / / /	positive
chaotic	/ / / / / /	orderly
alone	/ / / / / /	together
stale	/ / / / / /	fresh
non-conforming	/ / / / / /	conforming
unpleasant	/ / / / / /	pleasant
rigid	/ / / / / /	flexible
static	/ / / / / /	dynamic

faculty interdisciplinary interests

unimportant	/ / / / / /	important
changeable	/ / / / / /	stable
impersonal	/ / / / / /	personal
stale	/ / / / / /	fresh
shallow	/ / / / / /	deep
tense	/ / / / / /	relaxed
unpleasant	/ / / / / /	pleasant
static	/ / / / / /	dynamic
dull	/ / / / / /	creative
constrained	/ / / / / /	free

self-contribution to college environment

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

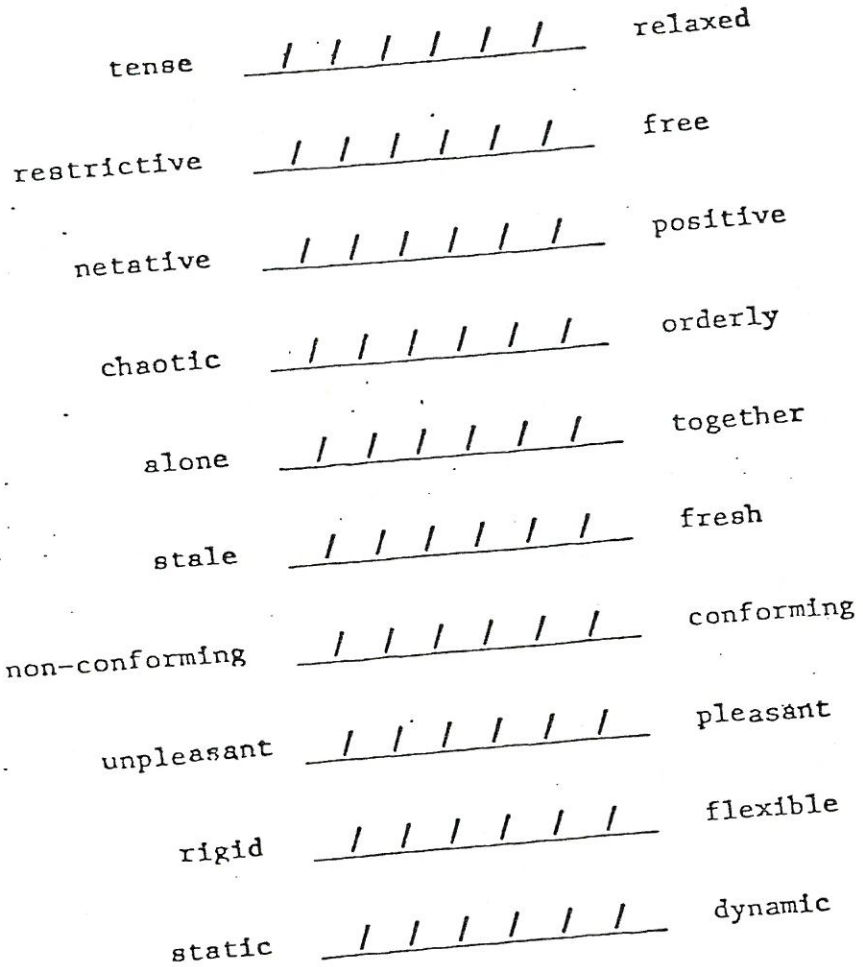
dormitory freedom

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

self-identity

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

residence-hall



dormitory cohesiveness

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

peer cooperation and communication

belligerent / / / / / / peaceful

inconsistant / / / / / / consistant

bottom / / / / / / top

unfair / / / / / / fair

passive / / / / / / active

superficial / / / / / / profound

flippant / / / / / / earnest

static / / / / / / dynamic

non-directional / / / / / / directional

expendable / / / / / / valuable

student-administration communication

belligerent	/ / / / / /	peaceful
inconsistant	/ / / / / /	consistant
bottom	/ / / / / /	top
unfair	/ / / / / /	fair
passive	/ / / / / /	active
superficial	/ / / / / /	profound
flippant	/ / / / / /	earnest
static	/ / / / / /	dynamic
non-directional	/ / / / / /	directional
expendable	/ / / / / /	valuable

social creativity

dull	/ / / / / /	sharp
shallow	/ / / / / /	deep
placid	/ / / / / /	vigorous
stale	/ / / / / /	fresh
expendible	/ / / / / /	valuable
uniform	/ / / / / /	diverse
insufficient	/ / / / / /	sufficient
chaotic	/ / / / / /	ordered
non-conforming	/ / / / / /	comforming
impotent	/ / / / / /	powerful

student social input

dull	/ / / / / /	sharp
shallow	/ / / / / /	deep
placid	/ / / / / /	vigorous
stale	/ / / / / /	fresh
expendible	/ / / / / /	valuable
uniform	/ / / / / /	diverse
insufficient	/ / / / / /	sufficient
chaotic	/ / / / / /	ordered
non-conforming	/ / / / / /	conforming
impotent	/ / / / / /	powerful

peer contribution to college environment

belligerent	/ / / / / /	peaceful
inconsistant	/ / / / / /	consistant
bottom	/ / / / / /	top
unfair	/ / / / / /	fair
passive	/ / / / / /	active
superficial	/ / / / / /	profound
flippant	/ / / / / /	earnest
static	/ / / / / /	dynamic
non-directional	/ / / / / /	directional
expendable	/ / / / / /	valuable

dull _____ sharp

shallow _____ deep

placid _____ vigorous

stale _____ fresh

expendible _____ valuable

uniform _____ diverse

insufficient _____ sufficient

chaotic _____ ordered

non-comforming _____ conforming

impotent _____ powerful

POST-TEST

)IRECTIONS: We wish to measure the meaning of certain words and phrases. This .s not a test and there are no correct or incorrect answers. Rate the words or)hrases at the top of each set of scales in terms of the meanings they have for 'ou. Place an X in the space which most nearly fits the meaning of the word or)hrase at the top of the page as you actually think they are.

Example:

cowardly	/ X / / / / /	brave
bad	/ / / X / / /	good
pass ve	/ / X / / / /	active

self-identity

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

self-acceptance of circumstances

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

self-contribution to college environment

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

motivation

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

"social me"

sad	/ / / / / /	happy
tense	/ / / / / /	relaxed
submissive	/ / / / / /	dominant
subsist	/ / / / / /	prevail
impotent	/ / / / / /	powerful
passive	/ / / / / /	active
constrained	/ / / / / /	free
alone	/ / / / / /	together
resistive	/ / / / / /	cooperative
negative	/ / / / / /	positive

weekend activity

dull	/ / / / / /	sharp
shallow	/ / / / / /	deep
placid	/ / / / / /	vigorous
stale	/ / / / / /	fresh
expendible	/ / / / / /	valuable
uniform	/ / / / / /	diverse
insufficient	/ / / / / /	sufficient
chaotic	/ / / / / /	ordered
non-conforming	/ / / / / /	conforming
impotent	/ / / / / /	powerful

weekday activity

dull	/ / / / / /	sharp
shallow	/ / / / / /	deep
placid	/ / / / / /	vigorous
stale	/ / / / / /	fresh
expendible	/ / / / / /	valuable
uniform	/ / / / / /	diverse
insufficient	/ / / / / /	sufficient
chaotic	/ / / / / /	ordered
non-conforming	/ / / / / /	conforming
impotent	/ / / / / /	powerful

social creativity

dull	/ / / / / /	sharp
shallow	/ / / / / /	deep
placid	/ / / / / /	vigorous
stale	/ / / / / /	fresh
expendible	/ / / / / /	valuable
uniform	/ / / / / /	diverse
insufficient	/ / / / / /	sufficient
chaotic	/ / / / / /	ordered
non-conforming	/ / / / / /	comforming
impotent	/ / / / / /	powerful

social adequacy

dull	/ / / / / /	sharp
shallow	/ / / / / /	deep
placid	/ / / / / /	vigorous
stale	/ / / / / /	fresh
expendible	/ / / / / /	valuable
uniform	/ / / / / /	diverse
insufficient	/ / / / / /	sufficient
chaotic	/ / / / / /	ordered
non-conforming	/ / / / / /	conforming
impotent	/ / / / / /	powerful

student social input

dull	/ / / / / /	sharp
shallow	/ / / / / /	deep
placid	/ / / / / /	vigorous
stale	/ / / / / /	fresh
expendible	/ / / / / /	valuable
uniform	/ / / / / /	diverse
insufficient	/ / / / / /	sufficient
chaotic	/ / / / / /	ordered
non-conforming	/ / / / / /	conforming
impotent	/ / / / / /	powerful

dormitory cohesiveness

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

dormitory as a learning-center

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

dormitory as a social-center

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

dormitory freedom

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

dormitory life-space

tense	/ / / / / /	relaxed
worthless	/ / / / / /	valuable
rough	/ / / / / /	smooth
restrictive	/ / / / / /	free
stale	/ / / / / /	fresh
negative	/ / / / / /	positive
alone	/ / / / / /	together
unstable	/ / / / / /	stable
unpleasant	/ / / / / /	pleasant
chaotic	/ / / / / /	orderly

peer cooperation and communication

belligerent	/ / / / / /	peaceful
inconsistant	/ / / / / /	consistant
bottom	/ / / / / /	top
unfair	/ / / / / /	fair
passive	/ / / / / /	active
superficial	/ / / / / /	profound
flippant	/ / / / / /	earnest
static	/ / / / / /	dynamic
non-directional	/ / / / / /	directional
expendable	/ / / / / /	valuable

peer contribution to college environment

belligerent	/ / / / / /	peaceful
inconsistant	/ / / / / /	consistant
bottom	/ / / / / /	top
unfair	/ / / / / /	fair
passive	/ / / / / /	active
superficial	/ / / / / /	profound
flippant	/ / / / / /	earnest
static	/ / / / / /	dynamic
non-directional	/ / / / / /	directional
expendable	/ / / / / /	valuable

student-faculty communication

belligerent	/ / / / / /	peaceful
inconsistant	/ / / / / /	consistant
bottom	/ / / / / /	top
unfair	/ / / / / /	fair
passive	/ / / / / /	active
superficial	/ / / / / /	profound
flippant	/ / / / / /	earnest
static	/ / / / / /	dynamic
non-directional	/ / / / / /	directional
expendable	/ / / / / /	valuable

student-administration communication

belligerent / / / / / / peaceful

inconsistant / / / / / / consistant

bottom / / / / / / top

unfair / / / / / / fair

passive / / / / / / active

superficial / / / / / / profound

flippant / / / / / / earnest

static / / / / / / dynamic

non-directional / / / / / / directional

expendable / / / / / / valuable

student-faculty involvement

belligerent	/ / / / / /	peaceful
inconsistant	/ / / / / /	consistant
bottom	/ / / / / /	top
unfair	/ / / / / /	fair
passive	/ / / / / /	active
superficial	/ / / / / /	profound
flippant	/ / / / / /	earnest
static	/ / / / / /	dynamic
non-directional	/ / / / / /	directional
expendable	/ / / / / /	valuable

academic flexibility

unimportant _____ important

changeable _____ stable

impersonal _____ personal

stale _____ fresh

shallow _____ deep

tense _____ relaxed

unpleasant _____ pleasant

static _____ dynamic

dull _____ creative

constrained _____ free

academic creativity

unimportant	/ / / / / /	important
changeable.	/ / / / / /	stable
impersonal	/ / / / / /	personal
stale	/ / / / / /	fresh
shallow	/ / / / / /	deep
tense	/ / / / / /	relaxed
unpleasant	/ / / / / /	pleasant
static	/ / / / / /	dynamic
dull	/ / / / / /	creative
constrained	/ / / / / /	free

extension of academics into residence halls

unimportant	/ / / / / /	important
changeable	/ / / / / /	stable
impersonal	/ / / / / /	personal
stale	/ / / / / /	fresh
shallow	/ / / / / /	deep
tense	/ / / / / /	relaxed
unpleasant	/ / / / / /	pleasant
static	/ / / / / /	dynamic
dull	/ / / / / /	creative
constrained	/ / / / / /	free

faculty interdisciplinary interests

unimportant	/ / / / / /	important
changeable	/ / / / / /	stable
impersonal	/ / / / / /	personal
stale	/ / / / / /	fresh
shallow	/ / / / / /	deep
tense	/ / / / / /	relaxed
unpleasant	/ / / / / /	pleasant
static	/ / / / / /	dynamic
dull	/ / / / / /	creative
constrained	/ / / / / /	free

student interdisciplinary interests

unimportant	/ / / / / /	important
changeable	/ / / / / /	stable
impersonal	/ / / / / /	personal
stale	/ / / / / /	fresh
shallow	/ / / / / /	deep
tense	/ / / / / /	relaxed
unpleasant	/ / / / / /	pleasant
static	/ / / / / /	dynamic
dull	/ / / / / /	creative
constrained	/ / / / / /	free

residence-hall

tense	/ / / / / /	relaxed
restrictive	/ / / / / /	free
netative	/ / / / / /	positive
chaotic	/ / / / / /	orderly
alone	/ / / / / /	together
stale	/ / / / / /	fresh
non-conforming	/ / / / / /	conforming
unpleasant	/ / / / / /	pleasant
rigid	/ / / / / /	flexible
static	/ / / / / /	dynamic

dormitory

tense	/ / / / / /	relaxed
restrictive	/ / / / / /	free
negative	/ / / / / /	positive
chaotic	/ / / / / /	orderly
alone	/ / / / / /	together
stale	/ / / / / /	fresh
non-conforming	/ / / / / /	conforming
unpleasant	/ / / / / /	pleasant
rigid	/ / / / / /	flexible
static	/ / / / / /	dynamic

participated in or attended any of the following programs:_____:

YES_____ NO_____

1. Discussion of Astrology and Witchcraft
2. Macrame
3. Decoupage
4. Massey & Andrick Concert
5. Gamble Rogers Concert
6. The Second Collection Concert
7. Silverman Concert
8. Exercise Club
9. Embroidery
10. How to stock a bar
11. How to make Christmas ornaments
12. Majorettes
13. Search for Dracula - Lecture
14. Bridge
15. Bicycle excursion
16. Photography - the basics
17. Bicycle Repair
18. Rap Session with Dr. Willett

PRETEST SCORES BY QUESTION

8-8-77 8-8-77

NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	56	58	53	55	60	67	60	65	57	59	57	56	52	59	68	67	67	58	58	56	59	62	65	62	64	56	70
2	49	51	50	52	43	53	45	52	39	43	33	48	32	47	50	48	35	48	52	46	48	51	44	45	47	47	46
3	45	49	56	59	69	59	50	52	54	57	52	59	56	56	63	50	55	55	56	64	48	49	51	52	47	46	44
4	58	49	57	43	53	49	42	54	61	36	31	52	57	33	50	40	59	61	55	60	51	58	62	49	53	52	52
5	38	10	44	10	35	64	22	39	10	22	54	31	10	40	51	16	59	36	58	63	41	40	10	10	40	35	70
6	49	50	51	45	50	47	47	44	66	55	53	38	50	60	51	39	48	41	44	42	32	53	59	42	38	46	38
7	19	50	39	29	27	58	44	41	22	48	21	30	21	20	11	21	22	10	10	10	10	19	31	20	21	38	51
8	52	65	56	56	57	54	58	61	68	62	55	61	69	48	60	61	60	61	60	62	60	70	70	60	50	64	64
9	57	55	54	52	69	16	58	58	43	61	59	58	43	40	58	58	58	62	52	64	40	43	70	40	40	40	10
10	39	53	61	51	48	43	53	49	52	52	56	61	56	52	58	59	57	60	63	58	57	45	68	55	55	51	43
11	47	33	52	57	39	61	36	35	55	28	21	47	65	37	40	37	28	34	64	29	67	59	40	44	34	28	31
12	37	40	59	59	46	53	41	41	36	36	45	52	31	40	48	35	28	33	54	37	41	42	32	33	41	16	40
13	40	48	52	42	37	37	52	28	39	38	25	34	35	40	38	42	54	43	53	43	34	46	57	47	48	47	48
14	50	45	52	44	49	55	44	45	40	45	34	46	43	53	47	44	45	34	44	43	42	52	58	52	50	42	39
15	54	48	57	35	53	22	49	56	52	44	56	45	52	49	48	51	55	49	52	57	44	55	44	30	40	48	29
16	48	38	52	51	50	53	51	53	45	52	38	56	49	49	48	40	60	40	66	61	52	40	40	55	40	52	41
17	56	52	39	42	55	33	37	41	55	42	52	52	55	46	57	46	48	38	37	48	33	55	54	39	32	55	51
18	44	28	39	37	36	23	38	36	49	43	33	39	67	22	29	48	48	47	46	30	13	25	58	33	24	38	45
19	43	43	42	40	44	38	40	40	40	45	41	41	50	40	47	41	37	41	41	41	44	40	51	42	42	38	42
20	53	43	50	50	52	15	49	39	54	43	55	42	48	44	56	38	37	57	48	60	59	54	52	31	50	61	25
21	51	53	44	52	58	47	49	40	54	60	60	54	59	60	54	46	53	60	44	56	40	60	53	55	50	51	58
22	60	49	54	49	59	46	50	54	54	39	40	58	54	57	56	53	53	52	51	56	54	55	33	58	52	53	44
23	53	42	47	48	49	53	44	48	54	50	49	54	49	42	52	46	46	55	51	51	51	54	55	49	53	52	52
24	49	34	66	57	42	56	41	54	37	50	45	48	38	38	50	40	31	54	62	53	43	51	70	54	45	59	59
25	38	44	50	55	43	39	47	42	35	46	37	51	42	45	46	51	55	47	51	46	47	52	50	51	50	56	36
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161	51	50	43	44	47	47	68	51	39	55	31	37	39	40	61	48	54	57	56	61	46	57	55	50	48	56	47
162	31	44	36	45	41	22	42	37	29	37	26	37	30	33	31	38	50	41	33	39	37	45	28	35	40	42	37
163	56	38	58	58	58	54	51	60	54	60	58	60	51	59	59	49	60	38	60	55	60	60	60	57	57	60	41
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166	34	32	37	41	38	25	36	42	33	37	32	38	35	34	32	21	37	45	39	40	45	44	35	31	31	38	31
167	66	45	68	49	70	53	59	56	55	55	31	34	55	44	70	38	33	61	51	66	62	50	36	40	45	46	49
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PRETEST SCORES BY QUESTION

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170	53	48	55	45	57	44	45	56	59	42	26	41	61	36	53	46	43	35	45	53	39	65	49	37	53	62	58
171	53	50	54	41	44	31	37	31	48	45	42	41	53	34	44	30	40	33	35	33	40	37	70	36	34	32	23
172	53	42	52	45	53	58	42	42	46	47	55	47	51	41	50	35	48	56	30	54	47	63	51	43	46	65	46
173	56	50	55	53	60	59	49	51	66	59	30	55	62	54	48	53	40	62	51	61	63	63	56	56	51	62	51
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175	46	44	43	47	42	25	52	48	57	55	44	54	61	52	47	41	26	45	44	48	41	50	58	23	22	29	58
176	43	40	58	62	58	43	40	58	48	30	31	63	40	45	46	40	70	61	46	45	34	70	50	55	43	53	43
177	62	46	58	56	59	55	54	53	52	44	68	49	46	47	68	49	56	68	66	64	61	58	52	53	55	59	38
178	40	39	47	51	42	33	43	40	43	34	37	41	45	37	41	44	40	47	39	43	42	42	41	38	41	40	41
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181	51	39	46	52	53	35	43	44	45	30	52	52	34	50	49	55	44	55	44	48	51	46	36	45	38	44	32
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187	54	42	49	40	46	40	45	50	41	45	40	47	42	40	48	43	49	50	49	47	47	47	45	49	40	48	48
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200	48	25	27	35	40	56	37	15	34	31	36	40	40	40	40	30	35	42	20	40	10	42	40	40	34	40	40
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208	30	50	57	57	55	67	31	55	46	45	32	60	60	42	55	50	48	60	60	50	50	60	70	43	29	52	56
209	44	47	56	34	52	34	46	42	45	40	33	65	37	27	57	30	52	41	53	41	41	62	40	31	34	41	20
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211	36	34	42	43	31	44	44	43	33	45	24	43	33	43	34	45	41	44	44	36	40	47	43	44	41	38	40
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PRETEST SCORES BY QUESTION

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226	59	55	54	49	65	63	63	59	65	62	70	60	60	62	65	64	58	66	65	63	61	62	65	64	65	66	42
227	54	33	56	52	47	55	59	51	37	62	43	60	47	27	62	42	30	37	59	70	46	54	40	62	25	40	47
228	45	43	52	41	43	35	46	55	51	54	36	53	39	51	44	42	34	29	55	42	35	45	61	30	35	52	32
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PRETEST SCORES BY QUESTION

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254	47	43	61	50	64	46	67	48	58	60	64	53	65	64	48	50	54	61	40	52	65	65	63	55	58	70	61
255	29	42	38	50	45	30	25	38	27	22	29	44	27	45	33	40	54	26	44	25	17	50	60	56	47	54	34
256	51	38	55	40	38	27	43	58	50	42	58	54	48	45	56	45	56	58	57	56	55	46	45	46	42	40	40
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263	42	27	57	50	40	54	39	45	56	44	46	45	51	38	41	28	47	25	50	26	36	42	29	38	45	38	40
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265	45	44	56	46	62	48	43	54	52	56	49	45	52	46	49	41	46	51	52	48	48	51	51	41	35	32	44
266	58	57	49	38	59	33	34	49	53	57	64	60	56	59	60	51	45	50	54	52	55	61	50	35	43	59	31
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277	43	35	45	55	45	58	32	44	48	43	46	42	45	45	43	45	40	34	47	46	40	46	33	42	47	43	36
278	33	42	40	43	39	70	35	34	12	25	12	35	10	22	38	40	40	10	60	19	40	56	43	57	55	50	33
279	46	54	65	63	48	67	63	64	52	59	60	68	60	63	57	55	58	59	67	66	67	59	64	62	57	69	67
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PRETEST SCORES BY QUESTION

8-8-77

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282	53	42	45	54	42	53	41	55	56	51	42	45	54	49	37	47	56	34	52	41	50	39	51	55	55	55	48
283	65	63	63	60	41	70	55	66	36	65	69	62	39	51	68	44	64	58	60	63	56	66	63	65	59	62	60
284	58	55	64	56	62	44	43	57	66	64	64	60	69	53	59	58	65	60	63	60	59	63	67	45	53	67	40
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286	70	46	55	59	70	57	54	51	55	58	70	56	50	10	70	50	59	70	60	70	70	57	60	64	60	61	52
287	38	34	42	27	36	45	46	34	42	39	32	36	44	36	26	36	27	26	25	40	37	36	33	29	35	48	49
288	52	50	44	45	56	48	45	33	52	48	28	36	49	44	54	48	42	62	35	43	61	62	60	37	41	56	55
289	45	36	33	33	36	10	38	26	30	28	24	29	29	25	23	34	26	34	25	32	29	22	23	27	42	24	37
290	47	70	46	46	56	23	31	24	51	56	47	60	54	59	48	49	60	54	42	47	50	43	52	42	50	40	10
291	38	38	50	46	51	21	39	39	42	33	27	26	37	39	41	43	38	37	53	40	42	63	48	44	48	18	34
292	60	55	51	51	57	60	62	49	59	63	65	46	62	57	58	52	59	63	56	53	59	62	62	57	56	64	61
293	56	50	58	49	61	58	49	54	62	53	45	48	54	44	61	53	61	56	56	55	58	56	54	52	50	49	54
294	35	43	48	53	34	60	62	55	61	50	14	47	60	34	33	41	39	58	50	37	54	62	58	60	55	67	61
295	37	44	39	47	64	23	37	40	40	44	40	43	36	50	50	40	40	14	27	41	40	48	50	39	28	36	32
296	38	35	40	24	53	36	55	47	62	52	70	57	65	63	51	56	58	31	54	43	45	58	53	32	39	53	39
297	42	43	46	35	54	36	43	50	48	45	48	46	53	45	49	44	46	53	52	47	41	55	36	43	42	39	36
298	61	51	53	53	61	45	64	57	57	64	51	52	63	52	60	48	62	62	58	63	62	53	57	46	58	54	45
299	57	58	54	47	60	64	54	53	52	59	44	57	51	57	59	56	53	51	51	55	61	69	55	58	55	59	56
300	44	39	45	39	45	50	43	48	50	53	37	46	52	39	50	44	46	52	48	42	47	42	43	43	42	39	34
301	42	52	49	43	42	52	25	46	29	49	42	51	27	44	50	25	54	58	42	56	50	52	44	59	48	49	39
302	57	47	59	52	67	29	32	53	46	55	54	52	47	45	62	40	42	67	54	63	50	66	65	57	56	51	58
303	40	50	43	49	46	53	56	56	39	54	47	60	37	52	43	57	51	46	60	46	43	58	36	61	53	45	42
304	49	43	65	65	47	66	42	69	39	43	52	53	37	40	59	44	42	48	61	40	46	54	70	50	62	53	49
305	50	49	38	41	43	39	42	37	42	43	45	39	43	43	45	43	41	45	38	47	43	42	42	47	41	46	39
306	26	13	43	37	16	22	34	34	16	31	30	40	30	38	29	30	11	32	41	37	32	47	25	10	28	28	10
307	48	40	61	51	39	39	44	59	29	48	47	62	35	52	54	34	53	52	60	52	50	32	54	51	38	54	45
308	32	23	38	36	21	54	25	31	26	57	23	31	31	63	22	20	28	25	29	21	34	42	18	52	36	32	21

NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
309	46	34	47	58	40	49	35	50	31	35	16	55	22	40	58	31	63	58	66	58	58	70	63	38	31	55	39
310	40	52	44	28	54	33	47	47	49	49	53	50	45	26	52	60	52	41	58	45	36	67	33	54	41	59	41
311	44	33	36	32	41	30	40	38	37	46	43	43	34	41	44	40	41	36	37	45	40	52	31	44	40	40	36
312	60	60	53	52	62	51	58	58	55	58	59	59	56	50	61	60	48	70	59	63	60	59	59	57	58	50	49
313	49	43	38	34	43	37	45	44	47	48	47	37	40	46	49	43	43	40	42	41	38	44	44	43	42	47	52
314	66	55	68	70	16	70	68	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	10	60	60	48
315	36	40	41	40	40	40	40	40	35	43	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
316	65	64	61	58	70	64	61	60	65	62	65	64	67	65	58	63	63	65	64	57	66	66	65	61	58	57	58
317	55	39	61	59	55	63	45	49	27	58	16	52	39	10	54	40	30	56	43	37	31	70	41	59	16	27	19
318	45	55	31	22	41	28	43	31	64	61	34	36	47	67	70	51	61	63	65	61	59	68	45	48	56	18	10
319	41	31	53	57	44	56	51	52	39	43	55	57	39	47	40	39	53	43	50	38	48	46	47	54	43	44	60
320	51	51	59	53	39	32	64	47	53	64	52	64	41	48	42	54	66	47	66	40	48	39	46	25	24	32	50
321	59	48	52	56	60	42	47	58	57	50	45	63	47	47	62	47	66	62	66	53	57	51	53	50	48	59	44
322	43	54	52	54	31	56	62	57	61	62	30	59	62	32	36	60	53	70	62	36	40	58	63	61	58	50	55
323	58	54	57	56	60	57	55	49	50	50	60	50	50	50	61	50	50	60	50	60	60	50	50	51	50	50	48
324	51	44	51	50	60	34	38	51	61	56	63	58	62	48	63	52	60	62	59	64	56	58	60	60	44	40	60
325	61	39	50	40	51	45	46	47	48	48	52	45	42	39	55	38	49	55	41	44	58	52	52	40	38	45	42
326	38	38	37	38	39	25	38	37	37	38	35	32	35	39	34	37	34	36	38	34	37	38	38	34	33	32	35
327	53	45	27	41	57	24	37	42	43	39	35	36	58	36	44	46	27	57	44	46	44	48	46	32	36	41	30
328	48	46	53	36	49	34	32	43	28	42	49	41	36	38	47	37	47	40	50	48	42	47	38	35	40	42	37
329	39	49	37	44	40	35	49	39	51	56	55	55	44	54	40	49	56	50	57	46	42	39	40	55	32	31	33
330	63	52	62	43	59	41	58	42	65	62	35	59	63	37	54	45	61	57	58	56	43	60	59	53	50	58	41
331	52	46	58	52	52	37	53	61	42	52	43	64	40	54	62	54	62	50	68	52	53	52	57	58	61	58	50
332	58	53	59	69	64	69	63	62	65	69	67	57	67	69	56	56	63	65	64	63	62	70	68	56	61	58	62
333	33	22	67	19	67	19	52	40	25	31	40	13	16	40	43	40	13	16	70	40	37	28	49	28	16	25	31
334	45	44	42	43	45	35	44	48	47	43	36	52	49	42	44	42	40	47	42	42	43	50	51	46	42	47	39
335	29	43	26	39	40	31	35	35	31	41	25	32	30	55	28	36	32	54	38	32	26	32	34	26	34	40	30

PRETEST GROUP SUMS

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NO.	I	II	III	IV	V	VI	VII
1	299	248	230	236	303	56	68
2	237	197	221	166	234	46	50
3	278	217	269	210	262	64	63
4	277	194	254	238	200	60	50
5	231	124	204	070	110	63	51
6	225	172	225	228	251	42	51
7	142	128	087	093	183	10	11
8	298	220	285	277	294	62	60
9	280	148	287	199	272	64	58
10	231	204	260	221	269	58	58
11	226	196	208	219	171	29	40
12	234	186	202	141	192	37	48
13	221	174	179	177	220	43	38
14	232	201	209	193	231	43	47
15	265	127	256	203	241	57	48
16	287	199	228	174	230	61	48
17	217	146	234	219	223	48	57
18	208	117	173	199	179	30	29
19	201	162	213	181	209	41	47
20	216	146	276	208	217	60	56
21	235	204	269	226	268	56	54
22	270	205	265	196	248	56	56
23	246	203	257	212	224	51	52
24	261	212	233	196	203	53	50
25	249	195	212	179	233	46	46
26	244	189	293	197	234	45	63
27	194	123	272	193	215	65	63
28	306	253	312	205	249	64	58

PAGE 2 PRETEST GROUP SUMS 8-8-77

NO.	I	II	III	IV	V	VI	VII
29	200	170	180	143	198	39	32
30	229	175	250	198	220	49	49
31	136	158	216	145	180	43	43
32	215	176	241	176	218	50	58
33	239	163	281	192	237	50	52
34	305	227	323	272	279	60	64
35	235	168	289	217	214	67	67
36	239	162	197	209	206	43	44
37	190	197	227	217	240	49	47
38	280	206	253	237	308	54	45
39	319	227	312	208	259	60	61
40	211	131	204	179	208	28	39
41	245	178	213	164	204	37	40
42	263	220	196	219	219	51	34
43	238	219	210	245	274	41	41
44	315	227	250	247	264	70	66
45	222	136	210	212	284	37	44
46	180	168	227	241	236	41	39
47	252	157	238	200	248	49	53
48	245	176	210	185	223	41	49
49	246	155	177	146	279	25	36
50	235	220	266	180	222	53	53
51	295	193	308	211	256	70	62
52	281	211	313	228	277	60	55
53	219	170	217	183	224	41	37
54	245	187	281	206	224	56	57
55	242	130	217	177	146	37	34
56	201	168	239	203	218	57	53

PAGE 3 PRETEST GROUP SUMS 8-8-77

NO.	I	II	III	IV	V	VI	VII
57	247	184	220	185	189	50	45
58	262	201	233	209	226	50	40
59	263	193	224	210	208	50	44
60	305	186	267	241	274	58	49
61	299	227	324	248	220	65	62
62	256	176	265	265	311	58	49
63	266	217	242	186	259	44	58
64	215	181	240	192	242	46	48
65	259	178	269	203	242	48	54
66	268	166	253	206	250	44	55
67	284	226	267	222	271	50	51
68	309	252	327	261	271	65	63
69	252	201	236	170	192	49	48
70	250	221	292	235	278	60	58
71	239	161	214	224	219	52	49
72	269	182	230	242	238	48	52
73	248	168	277	240	243	68	63
74	254	178	217	213	241	43	41
75	220	166	214	120	213	42	48
76	235	210	257	176	239	52	44
77	296	171	264	220	294	52	59
78	178	119	218	178	199	41	43
79	129	170	261	168	219	49	36
80	220	198	190	182	205	44	33
81	251	154	238	180	212	48	48
82	276	195	254	162	224	43	40
83	220	211	274	204	234	50	50
84	215	165	239	148	202	54	42

PAGE 4 PRETEST GROUP SUMS 8-8-77

NO.	I	II	III	IV	V	VI	VII
85	231	216	201	225	202	29	33
86	248	204	274	231	247	59	61
87	214	136	233	172	208	51	47
88	227	234	234	193	214	56	48
89	250	157	224	199	232	44	43
90	236	143	174	123	273	35	48
91	320	226	323	256	308	69	64
92	222	206	209	185	156	40	33
93	178	173	218	191	228	47	41
94	320	231	284	244	282	59	64
95	262	184	255	190	260	57	54
96	262	231	158	256	221	22	16
97	300	231	283	194	325	53	59
98	196	145	147	136	176	35	33
99	226	204	256	222	248	49	53
100	250	144	281	150	189	53	60
101	258	169	301	185	236	56	58
102	262	220	237	224	256	42	43
103	303	191	263	253	190	56	62
104	239	101	244	213	300	48	67
105	254	222	247	222	235	52	56
106	217	180	209	216	220	41	33
107	186	202	187	149	234	42	43
108	197	171	251	176	215	52	53
109	216	193	246	176	183	54	53
110	250	201	244	225	283	46	46
111	246	170	227	216	240	43	42
112	227	192	265	223	226	48	49

PRETEST GROUP SUMS

NO.	I	II	III	IV	V	VI	VII
113	275	216	290	245	292	56	56
114	244	154	243	212	248	55	52
115	300	181	253	236	285	41	56
116	291	214	290	203	266	56	55
117	213	145	248	227	202	54	53
118	344	199	296	200	257	70	61
119	314	215	277	250	270	54	53
120	251	186	227	185	210	39	45
121	196	159	189	156	199	39	36
122	296	213	317	233	239	61	62
123	219	208	252	232	225	33	58
124	302	214	278	242	265	62	60
125	201	184	209	140	244	16	41
126	264	046	075	082	070	40	16
127	252	164	263	208	256	53	53
128	243	212	243	225	245	48	46
129	213	166	301	214	252	58	64
130	264	179	200	212	213	47	43
131	164	110	179	154	186	44	29
132	267	181	196	213	241	44	38
133	208	185	240	196	213	47	48
134	249	189	232	210	214	45	48
135	223	196	225	212	206	46	49
136	239	173	209	200	214	50	44
137	201	170	229	183	245	51	54
138	265	207	261	210	261	54	50
139	241	146	211	127	197	53	40
140	283	232	258	213	224	58	51

PRETEST GROUP SUMS

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NO.	I	II	III	IV	V	VI	VII
141	248	168	230	227	258	57	39
142	252	205	275	207	208	52	50
143	260	211	267	168	264	48	55
144	236	210	222	196	251	40	52
145	215	138	230	105	156	28	34
146	302	237	298	218	263	62	62
147	192	174	162	146	174	37	41
148	254	179	157	137	216	26	28
149	225	200	181	190	227	28	56
150	224	180	248	216	240	50	60
151	235	200	250	198	244	52	49
152	290	203	254	231	232	53	58
153	263	174	298	243	244	54	68
154	217	179	215	179	219	48	49
155	231	178	264	145	205	52	51
156	270	216	236	178	228	61	53
157	251	203	273	247	232	65	61
158	280	189	280	254	237	54	56
159	254	152	222	171	208	40	42
160	264	193	259	209	260	55	54
161	241	189	232	190	261	61	61
162	193	142	176	132	194	39	31
163	298	226	270	225	257	55	59
164	273	200	283	237	289	57	62
165	231	169	256	219	243	61	62
166	193	128	194	147	160	40	32
167	242	187	290	196	241	66	70
168	233	166	253	174	200	33	53

PRETEST GROUP SUMS

NO.	I	II	III	IV	V	VI	VII
169	238	194	279	185	235	60	59
170	240	179	210	234	217	53	53
171	201	142	212	208	196	33	44
172	219	192	264	211	207	54	50
173	252	219	271	247	265	61	48
174	185	176	251	190	206	52	51
175	215	117	218	226	244	48	47
176	235	203	227	208	195	45	46
177	282	219	318	208	240	64	68
178	207	163	208	171	197	43	41
179	269	200	277	245	270	49	55
180	246	169	257	164	244	41	51
181	230	170	262	161	217	48	49
182	215	157	194	165	208	40	36
183	237	211	258	218	247	62	62
184	272	193	226	219	206	45	44
185	247	159	206	182	208	37	44
186	175	249	188	198	160	10	12
187	244	169	237	175	215	47	48
188	306	220	308	240	317	67	70
189	269	169	231	180	239	70	67
190	168	171	225	174	212	49	49
191	230	181	199	201	248	51	32
192	289	208	289	212	220	60	60
193	258	159	265	217	250	51	55
194	239	202	270	246	273	56	58
195	229	159	202	145	176	26	45
196	127	111	196	153	187	32	35

PRETEST GROUP SUMS

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NO.	I	II	III	IV	V	VI	VII
197	196	168	213	179	201	41	33
198	318	227	266	252	251	57	58
199	284	231	261	187	223	53	56
200	137	165	176	156	163	40	40
201	263	174	221	179	224	53	49
202	262	202	231	230	255	51	58
203	258	211	289	242	240	56	43
204	199	190	261	225	270	52	53
205	201	159	164	147	145	40	24
206	211	194	233	208	231	43	45
207	213	179	218	178	222	52	43
208	280	202	227	236	218	50	55
209	268	133	211	184	190	41	57
210	222	187	247	215	264	58	53
211	213	172	175	162	211	36	34
212	251	197	264	216	246	53	53
213	244	195	253	166	219	48	58
214	227	154	213	160	210	41	45
215	250	152	208	177	217	52	44
216	243	185	260	197	229	48	55
217	226	195	172	127	191	40	38
218	265	152	278	226	248	70	67
219	264	203	268	211	271	57	58
220	265	218	267	215	257	56	60
221	146	150	096	120	167	17	12
222	219	149	224	185	227	33	44
223	248	192	228	167	212	42	45
224	239	168	251	205	231	50	52

PAGE 9 PRETEST GROUP SUMS 8-8-77

NO.	I	II	III	IV	V	VI	VII
225	224	162	227	257	240	48	45
226	296	241	321	252	306	63	65
227	256	194	227	178	223	70	62
228	249	141	188	196	236	42	44
229	257	194	219	218	208	52	36
230	267	186	277	217	228	55	56
231	225	153	262	191	182	45	47
232	219	183	202	181	197	38	46
233	241	172	236	175	201	38	47
234	224	175	225	206	228	47	49
235	265	234	266	241	231	40	52
236	246	178	256	185	226	50	42
237	229	198	263	210	233	49	49
238	231	169	184	157	213	38	36
239	220	171	233	175	211	48	41
240	216	164	230	196	225	44	48
241	273	218	237	214	238	53	53
242	323	229	302	238	247	61	59
243	269	196	169	156	200	36	36
244	267	142	267	180	199	50	52
245	276	223	286	191	240	58	59
246	237	183	221	228	245	41	49
247	275	193	261	217	221	47	54
248	264	216	245	227	250	44	55
249	218	179	278	242	288	50	59
250	294	228	236	235	284	59	61
251	261	155	297	231	177	44	68
252	270	105	123	170	173	26	29

PRETEST GROUP SUMS

NO.	I	II	III	IV	V	VI	VII
253	262	231	250	233	245	53	50
254	256	209	301	251	284	52	48
255	218	183	146	164	174	25	33
256	280	155	260	189	213	56	56
257	271	247	237	205	196	51	54
258	230	184	231	216	251	48	48
259	215	176	231	233	262	47	52
260	205	175	151	152	248	36	27
261	240	163	209	164	205	36	44
262	271	236	320	260	294	70	55
263	244	187	189	178	176	26	41
264	304	224	232	270	300	61	43
265	253	170	255	206	230	48	49
266	257	149	286	220	258	52	60
267	203	185	234	164	289	41	48
268	285	227	277	242	269	56	57
269	241	188	256	219	256	50	53
270	236	200	288	254	287	47	51
271	261	181	265	215	234	53	58
272	223	154	206	180	205	35	47
273	230	218	276	180	232	60	55
274	232	172	198	126	168	44	48
275	235	172	201	179	218	38	39
276	285	223	287	226	266	60	61
277	218	202	208	172	200	46	43
278	209	225	134	121	164	19	38
279	322	249	280	235	294	66	57
280	230	165	227	190	214	45	49

PAGE 11 PRETEST GROUP BUMS 8-8-77

NO.	I	II	III	IV	V	VI	VII
281	318	192	277	245	268	59	63
282	253	217	221	200	230	41	37
283	315	254	289	204	278	63	68
284	309	198	303	265	273	60	59
285	301	214	194	213	241	40	35
286	281	240	350	222	218	70	70
287	164	136	169	155	191	40	26
288	190	171	259	223	235	43	54
289	139	112	168	104	161	32	23
290	232	161	254	200	265	47	48
291	206	159	195	190	192	40	41
292	261	224	304	245	289	53	58
293	277	209	276	226	249	55	61
294	239	228	195	241	230	37	33
295	189	137	195	174	215	41	50
296	256	131	237	238	261	43	51
297	240	156	238	192	220	47	49
298	282	202	297	230	279	63	60
299	268	224	273	227	284	55	59
300	233	174	225	187	218	42	50
301	242	202	234	152	195	56	50
302	260	194	235	224	219	63	62
303	270	216	222	170	269	46	43
304	230	243	242	200	212	40	59
305	193	168	226	169	220	47	45
306	169	097	136	118	146	37	29
307	235	179	236	150	218	52	54
308	157	178	135	117	188	21	22

PRETEST GROUP SUMS

NO.	I	II	III	IV	V	VI	VII
309	281	176	218	186	175	58	58
310	251	156	224	200	234	45	52
311	195	146	204	154	206	45	44
312	277	218	311	229	286	63	61
313	204	156	217	175	225	41	49
314	348	210	292	280	333	70	70
315	201	160	196	155	203	40	40
316	312	241	331	263	315	57	58
317	235	197	213	177	192	37	54
318	224	154	242	224	277	61	70
319	271	210	231	171	211	38	40
320	302	134	237	179	281	40	42
321	305	196	283	208	239	53	62
322	283	229	214	244	270	36	36
323	256	214	298	200	259	60	61
324	279	188	292	241	238	64	63
325	232	163	277	194	210	44	55
326	178	130	185	148	190	34	34
327	176	133	246	195	203	46	44
328	234	145	228	149	195	48	47
329	244	166	226	174	257	46	40
330	282	187	257	247	254	56	54
331	313	208	250	191	259	52	62
332	305	255	316	270	310	63	56
333	203	082	193	118	185	40	43
334	224	166	216	197	215	42	44
335	163	130	174	127	210	32	28
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38	46	28	38	40	30	44	54	37	44	38	59	55	58	53	58	50	47	36	48	41	42	44	47	43	43	55	59	Y
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80	40	41	24	44	43	22	46	48	34	54	32	18	36	13	34	20	43	34	43	19	21	32	30	28	53	22	29	Y
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92	70	40	40	64	40	20	10	47	50	40	10	10	10	55	10	64	40	70	69	40	64	60	61	70	70	19	26	Y
93	55	62	54	56	45	34	39	44	44	45	48	55	43	56	47	63	50	62	57	48	52	49	62	47	62	44	46	Y
94	66	66	67	66	54	56	56	46	56	43	46	63	70	59	58	63	32	63	66	62	63	62	61	51	64	58	55	Y
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110	49	40	54	37	57	38	38	59	52	51	47	32	45	52	51	50	52	43	47	46	42	45	35	31	45	48	51	Y
111	54	55	55	55	55	55	57	48	56	54	55	57	57	54	57	56	55	54	54	51	55	51	51	54	55	55	57	Y
112	47	51	32	52	52	46	44	42	33	46	44	45	59	45	41	49	47	44	51	40	31	22	40	31	48	47	35	Y

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126	54	52	46	49	52	45	44	54	41	44	42	34	52	54	39	46	46	50	48	48	44	47	42	38	44	42	42	Y
127	28	36	29	35	22	32	28	35	40	40	43	36	42	49	40	50	43	31	28	27	35	33	37	45	39	39	34	Y
128	47	45	38	41	55	51	34	35	33	35	49	35	47	31	34	49	52	48	44	54	36	39	38	39	36	42	38	Y
129	48	35	45	26	30	17	27	23	19	27	44	54	43	54	48	40	24	47	47	45	46	50	48	46	47	42	47	Y
130	47	49	40	35	35	35	29	36	34	37	50	49	53	51	47	60	51	39	49	40	57	43	45	47	49	53	47	Y
131	45	43	37	61	41	34	39	42	32	35	56	50	49	57	50	54	45	38	47	48	42	49	52	44	52	49	47	Y
132	48	51	39	48	48	39	39	50	43	48	50	61	58	60	46	50	60	47	60	51	42	47	45	42	41	59	50	Y
133	44	45	48	48	48	39	58	51	45	50	50	46	51	51	50	62	63	42	50	42	50	52	47	46	47	51	52	Y
134	63	60	56	50	60	54	51	60	53	46	58	60	70	58	55	52	51	50	50	42	60	58	60	50	40	67	69	Y
135	42	50	41	48	53	49	43	45	32	41	46	29	59	63	60	43	54	42	35	44	36	44	40	35	32	55	55	Y
136	43	56	60	47	17	29	47	64	46	50	63	23	68	63	51	62	22	19	17	16	63	65	66	25	34	37	54	Y
137	56	62	55	62	52	61	51	54	52	47	60	66	58	61	54	62	46	54	52	56	50	58	62	62	55	55	50	
138	16	33	19	32	30	44	44	31	38	39	40	41	43	55	47	27	52	55	48	48	43	46	46	34	41	33	38	Y
139	48	35	43	38	55	27	32	33	41	49	46	31	37	40	44	52	49	32	29	22	17	20	32	32	46	44	47	Y
140	48	50	43	48	49	50	43	48	49	40	32	32	47	51	41	39	53	47	49	38	34	47	34	48	48	35	38	Y

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142	39	37	45	35	40	54	54	42	34	44	40	32	56	58	47	42	35	36	37	38	40	38	41	33	46	47	52	Y
143	59	45	43	46	60	57	57	57	61	60	70	56	64	52	68	53	59	53	53	53	59	55	55	65	58	59	59	Y
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166	54	50	40	44	56	35	34	36	31	40	60	32	55	22	41	45	44	36	38	35	60	43	38	52	48	62	36	Y
167	58	56	57	58	56	42	45	52	49	40	40	40	55	49	55	40	40	41	39	37	60	58	40	42	60	44	54	Y
168	51	48	50	54	42	43	51	46	49	35	51	43	51	42	49	51	47	53	60	53	43	55	47	48	51	46	50	Y

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171	41	42	39	40	47	44	38	37	42	38	42	40	44	33	45	39	38	38	32	38	44	35	40	39	42	42	37	Y
172	50	53	49	50	51	34	38	45	49	39	48	44	48	49	46	54	49	48	41	43	48	46	50	42	48	51	51	Y
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174	43	51	44	46	39	27	48	45	38	48	44	44	55	62	50	58	56	47	58	54	50	46	43	54	46	59	70	Y
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176	47	46	52	42	44	59	47	47	56	48	48	45	44	45	52	47	47	47	47	47	45	51	47	46	43	45	50	Y
177	43	52	37	42	36	35	48	45	44	40	52	57	59	51	55	48	50	45	41	41	39	40	36	42	45	51	51	Y
178	52	47	48	56	50	49	39	58	60	40	10	42	40	10	10	50	22	59	34	58	64	64	57	64	64	16	16	Y
179	46	45	49	41	42	48	48	47	38	56	46	53	45	46	44	57	43	55	50	54	48	64	50	53	57	50	43	Y
180	51	51	38	50	49	56	57	50	51	40	53	43	50	53	48	60	51	50	51	41	37	39	31	39	56	56	49	Y
181	57	57	48	57	57	45	46	40	49	44	46	50	50	47	48	50	44	33	38	37	50	32	44	46	51	45	47	Y
182	67	70	64	64	64	35	56	58	36	40	70	44	70	70	67	44	41	37	39	40	28	64	40	28	31	70	70	
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187	55	47	47	40	49	14	50	37	41	41	50	16	70	26	52	51	41	43	39	27	44	26	25	47	54	50	55	Y
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190	39	35	44	50	45	42	43	35	27	44	37	32	32	30	50	39	48	41	38	26	45	47	29	33	42	30	36	Y
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192	56	56	50	49	57	26	46	54	40	41	47	30	52	54	44	58	47	58	45	45	55	43	46	53	55	46	45	Y
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194	55	60	45	55	60	54	58	59	62	63	41	32	26	19	41	59	59	29	31	29	37	37	49	24	30	22	34	Y
195	63	51	25	59	69	49	60	50	49	36	38	65	62	28	65	70	32	49	40	60	64	54	58	45	63	66	40	Y
196	58	43	29	67	58	59	45	40	48	43	42	40	44	44	41	40	55	34	20	22	42	49	54	42	40	40	45	Y

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198	56	40	47	51	50	26	27	60	60	45	41	45	41	38	37	65	49	56	54	40	44	34	48	42	44	36	27	Y
199	61	50	54	62	60	51	46	52	51	56	67	66	63	66	65	65	59	55	60	58	57	50	54	59	52	64	62	Y
200	52	43	50	51	52	44	44	45	49	47	39	44	41	46	52	60	52	49	47	47	46	46	41	43	44	51	51	Y
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202	53	48	57	51	60	45	35	58	57	51	59	56	66	69	51	42	54	60	36	49	46	49	50	45	42	57	52	Y
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206	60	60	56	59	60	26	50	43	57	44	56	38	57	44	55	40	33	42	40	36	42	57	56	34	55	49	48	Y
207	51	53	52	58	54	42	47	51	41	49	54	58	54	54	56	53	52	52	48	45	49	44	45	47	51	53	54	Y
208	30	32	48	38	56	28	10	62	47	50	40	26	21	40	36	34	32	36	70	68	29	39	40	34	59	10	39	Y
209	44	44	42	46	42	40	47	26	22	42	37	41	37	34	35	35	40	31	31	10	41	38	38	23	48	38	38	Y
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211	62	53	54	51	62	49	49	55	52	47	56	40	43	52	48	58	67	54	55	56	58	57	57	50	55	50	56	Y
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224	61	60	58	59	58	34	39	55	55	51	59	60	59	59	55	58	58	58	54	53	53	51	49	54	57	57	58	Y

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227	41	44	38	41	43	19	37	44	44	34	51	50	59	47	49	44	49	41	40	38	61	48	35	37	37	48	42	Y
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229	43	44	37	42	45	27	34	41	30	41	40	46	50	45	[illegible]	53	44	45	44	45	42	41	44	40	42	50	53	Y
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254	70	40	28	31	61	22	49	25	22	25	55	52	49	52	50	22	25	28	52	31	49	37	31	22	28	37	55	N
255	45	50	37	48	50	50	30	50	49	50	46	33	50	50	49	47	46	45	58	50	47	50	42	47	40	43	50	N
256	45	50	45	40	48	46	42	43	43	44	48	50	54	47	43	46	49	50	57	48	49	43	49	40	45	49	52	N
257	61	69	55	64	65	63	63	62	45	59	62	50	69	64	62	64	54	53	67	53	56	56	60	58	60	64	65	N
258	49	40	38	40	40	21	45	40	33	40	44	41	46	41	44	40	40	40	42	39	39	39	38	40	40	42	36	N
259	57	50	44	51	61	61	57	56	48	60	48	40	48	47	41	60	60	40	41	47	38	57	40	40	40	41	39	N
260	43	38	36	40	44	43	44	40	37	41	41	27	39	38	30	38	40	36	44	38	44	42	40	40	47	31	31	N
261	42	38	42	41	38	49	39	39	40	40	50	42	50	43	55	40	40	50	39	40	40	40	39	42	40	41	40	N
262	50	49	46	50	51	39	39	41	48	45	50	41	49	54	52	49	46	49	44	42	48	36	40	44	40	47	50	N
263	32	50	49	26	21	28	36	23	30	27	34	27	60	37	43	49	40	60	57	52	60	33	22	56	40	32	49	N
264	50	49	50	49	49	32	34	43	37	45	50	51	44	47	48	47	47	57	51	54	47	44	43	43	44	50	49	N
265	49	38	37	51	46	49	56	53	57	50	52	56	49	46	55	49	47	48	49	57	42	57	57	37	27	53	51	N
266	56	57	44	57	57	49	45	52	44	38	53	42	51	53	50	56	38	38	37	46	41	45	45	43	46	50	51	N
267	51	50	54	51	53	29	55	56	66	46	50	54	54	57	54	51	45	53	48	45	56	57	25	54	51	50	55	N
268	48	42	48	42	39	40	44	44	49	48	53	36	45	40	45	57	50	56	55	51	51	50	47	49	54	44	49	N
269	59	55	24	57	56	29	48	42	34	20	48	60	39	50	56	40	20	40	40	41	56	53	54	41	55	54	46	N
270	43	40	40	40	36	35	41	42	44	41	40	31	42	46	37	42	41	50	55	49	46	51	43	44	48	38	39	Y
271	25	29	27	24	38	37	26	24	21	34	26	25	23	35	25	28	22	27	28	30	41	32	20	23	33	38	26	N
272	33	22	37	43	10	20	20	23	31	29	30	52	54	25	32	34	33	47	35	32	36	39	38	33	27	26	33	N
273	52	57	36	59	30	55	38	40	33	50	60	44	55	48	47	56	56	50	37	41	55	42	40	60	37	59	50	N
274	64	66	63	64	67	61	60	62	61	65	66	66	68	68	66	61	68	62	62	62	66	57	59	66	66	63	66	N
275	60	58	48	51	49	40	42	50	50	55	57	59	53	54	57	56	54	57	58	45	37	35	34	49	49	52	50	N

POSTEST GROUP SUMS

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NO.	I	II	III	IV	V	VI	VII
1	269	249	181	162	184	40	41
2	296	254	271	291	283	54	56
3	225	191	218	224	208	36	39
4	235	253	218	215	200	50	50
5	333	247	214	204	123	38	44
6	244	245	224	238	226	37	39
7	283	221	273	295	296	62	57
8	110	139	160	143	168	28	31
9	233	237	221	278	222	52	51
10	207	237	211	227	235	44	47
11	255	233	211	209	195	42	41
12	241	256	269	266	258	53	51
13	268	222	258	299	246	60	60
14	276	254	248	284	259	56	56
15	303	285	274	289	317	58	60
16	238	222	247	273	254	54	54
17	204	199	204	213	201	44	44
18	259	245	273	269	283	52	52
19	266	179	255	315	225	65	52
20	263	253	232	240	245	48	49
21	286	288	289	295	267	57	52
22	246	194	238	252	179	43	57
23	208	152	146	126	170	10	16
24	230	209	222	226	230	45	53
25	210	216	193	197	190	37	38
26	246	259	268	252	221	40	53
27	286	217	233	293	247	58	48
28	260	234	208	274	240	55	50

POSTEST GROUP SUMS

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NO.	I	II	III	IV	V	VI	VII
29	251	193	225	254	218	55	51
30	246	242	199	247	265	35	40
31	222	203	234	246	218	46	47
32	211	220	253	268	212	53	49
33	204	256	277	279	244	54	48
34	272	241	249	285	251	53	58
35	308	275	304	313	302	65	63
36	310	251	288	287	253	60	58
37	183	121	163	238	230	58	38
38	182	209	254	246	214	55	59
39	249	230	254	264	243	59	54
40	136	144	142	167	217	26	30
41	248	230	247	254	222	54	58
42	218	207	224	234	211	40	44
43	219	202	196	257	190	49	52
44	248	246	259	239	230	70	58
45	278	259	254	270	237	49	42
46	187	208	215	242	233	46	50
47	201	229	254	262	240	50	51
48	154	149	187	236	240	53	53
49	212	195	219	212	205	43	37
50	278	213	267	293	203	58	53
51	193	200	188	179	208	30	32
52	277	271	257	248	244	43	43
53	234	203	227	226	222	39	38
54	235	231	255	240	238	47	50
55	196	206	201	196	260	34	40
56	195	208	230	227	261	47	48

POSTEST GROUP SUMS

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NO.	I	II	III	IV	V	VI	VII
57	244	267	210	160	171	31	37
58	195	198	206	213	209	45	45
59	315	295	197	191	225	39	40
60	231	242	266	307	253	56	59
61	185	204	174	187	202	35	39
62	225	208	210	206	210	41	40
63	270	217	240	263	241	51	53
64	297	283	234	239	297	56	58
65	167	150	184	205	167	44	40
66	244	227	239	242	239	47	47
67	231	229	193	216	241	44	40
68	267	183	226	279	280	55	57
69	150	180	200	194	196	37	40
70	247	276	239	241	328	44	40
71	191	204	176	178	176	35	32
72	212	184	204	179	144	31	13
73	210	187	161	191	219	38	39
74	250	220	250	260	230	60	60
75	240	200	228	230	212	49	41
76	231	217	155	169	246	38	31
77	270	239	238	250	164	46	48
78	175	237	158	160	172	10	22
79	152	128	197	193	208	36	32
80	192	193	174	146	160	22	29
81	276	245	279	263	287	53	49
82	218	269	252	280	146	59	60
83	145	184	200	210	201	39	40
84	232	218	247	245	232	49	44

POSTEST GROUP SUMS

NO.	I	II	III	IV	V	VI	VII
85	272	258	262	263	253	54	51
86	177	208	164	183	151	34	31
87	272	177	201	235	233	33	45
88	251	255	236	260	250	50	50
89	208	227	203	233	218	30	30
90	278	275	259	254	258	48	52
91	232	250	228	222	215	40	52
92	254	167	120	179	283	19	26
93	272	206	235	259	269	44	46
94	319	268	278	282	286	58	55
95	246	228	180	227	247	37	47
96	165	199	232	243	200	53	52
97	259	213	243	259	244	55	56
98	118	113	120	158	164	22	29
99	307	238	282	292	304	63	63
100	285	215	203	231	178	33	33
101	290	264	289	288	309	61	59
102	299	275	296	307	283	60	64
103	182	155	144	151	137	26	30
104	151	150	172	217	254	28	37
105	294	289	278	284	273	64	61
106	303	294	285	311	323	64	48
107	254	254	252	239	219	46	53
108	239	236	213	175	255	41	44
109	082	137	114	106	112	12	16
110	237	244	227	250	230	48	51
111	274	271	279	279	269	55	57
112	234	217	227	241	213	47	35

POST TEST GROUP SUMS

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NO.	I	II	III	IV	V	VI	VII
113	245	262	277	286	265	62	52
114	295	240	216	304	290	66	58
115	293	211	214	224	220	58	62
116	220	203	231	239	259	45	47
117	235	256	267	316	142	68	22
118	230	199	182	206	211	44	46
119	269	242	253	270	216	51	52
120	225	219	148	150	222	33	30
121	252	238	225	213	172	43	38
122	173	158	153	179	191	28	26
123	258	209	231	244	227	48	52
124	231	183	230	241	207	39	39
125	217	257	174	174	186	40	35
126	253	236	213	237	236	42	42
127	150	157	201	224	164	33	34
128	226	208	199	213	234	42	38
129	184	116	187	209	209	42	47
130	206	169	223	262	236	53	47
131	227	188	222	255	220	49	47
132	234	219	260	274	260	59	50
133	233	241	242	277	247	51	52
134	293	278	287	286	253	67	69
135	234	222	207	279	211	55	55
136	223	203	250	266	137	37	54
137	297	270	283	281	258	55	50
138	130	187	201	224	246	33	38
139	219	188	204	222	149	44	47
140	238	239	200	231	221	35	38

POSTEST GROUP SUMS

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NO.	I	II	III	IV	V	VI	VII
141	304	278	289	318	288	68	64
142	196	224	206	238	186	47	52
143	253	292	311	296	277	59	59
144	210	207	202	194	179	41	37
145	269	205	233	269	302	63	66
146	228	223	222	194	215	37	34
147	266	232	250	247	266	58	62
148	165	223	139	207	257	20	16
149	267	207	196	235	244	51	58
150	255	239	256	249	229	45	53
151	279	270	256	258	243	51	50
152	172	159	098	097	155	10	18
153	254	277	276	275	254	53	54
154	274	239	196	177	169	41	36
155	232	252	271	282	288	52	55
156	250	211	210	233	215	40	42
157	191	122	166	189	180	41	55
158	234	219	238	239	258	41	39
159	282	247	230	257	293	43	54
160	254	204	253	259	255	56	53
161	323	268	310	312	294	64	69
162	278	248	233	202	244	40	43
163	206	176	225	236	237	48	49
164	206	202	202	201	219	40	40
165	223	215	218	224	185	59	55
166	244	192	218	207	213	62	36
167	285	244	224	239	217	44	54
168	245	231	229	240	256	46	50

POSTEST GROUP SUMS

ID	I	II	III	IV	V	VI	VII
169	232	242	238	254	242	45	50
170	286	261	279	272	261	54	53
171	209	208	206	199	190	42	37
172	253	217	228	246	229	51	51
173	235	202	235	263	305	70	69
174	223	197	229	281	265	59	70
175	259	181	257	271	261	48	59
176	231	253	241	235	233	45	50
177	210	208	252	263	216	51	51
178	253	256	192	132	237	16	16
179	223	223	238	235	250	50	43
180	239	263	237	262	230	56	49
181	276	237	239	239	202	45	47
182	329	249	260	292	185	70	70
183	289	285	270	263	266	54	63
184	284	250	240	248	178	42	38
185	257	227	223	225	182	47	45
186	231	225	200	215	218	31	30
187	238	191	218	240	194	50	55
188	240	194	235	249	242	53	52
189	242	244	228	238	248	41	42
190	213	192	172	199	198	30	36
191	266	222	241	280	273	61	62
192	268	223	210	255	250	46	45
193	239	188	228	265	271	48	46
194	275	293	224	204	185	22	34
195	267	277	250	257	245	66	40
196	255	250	217	224	173	40	45

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POSTEST GROUP SUMS

NO.	I	II	III	IV	V	VI	VII
197	234	233	238	231	255	35	34
198	244	223	232	230	243	36	27
199	287	260	303	318	289	64	62
200	248	234	220	251	241	51	51
201	213	211	204	224	208	48	48
202	269	255	289	282	245	57	52
203	216	192	227	250	205	50	38
204	228	245	242	268	192	40	54
205	216	205	182	212	231	39	52
206	295	236	252	229	193	49	48
207	268	235	256	269	246	53	54
208	204	203	184	163	235	10	39
209	218	177	179	181	153	38	38
210	221	228	224	210	232	37	40
211	282	267	238	[illegible]8	290	50	56
212	252	228	235	232	225	39	50
213	229	236	230	237	258	51	53
214	261	261	273	275	241	54	54
215	281	254	270	302	286	60	58
216	232	226	250	260	253	44	45
217	246	226	220	254	250	46	45
218	340	243	284	300	245	68	70
219	303	241	251	323	245	61	60
220	266	267	231	194	237	54	56
221	320	265	287	310	214	70	70
222	207	145	214	269	226	54	51
223	258	191	197	254	209	43	47
224	296	241	284	289	276	57	58

PAGE 3 POSTEST GROUP SUMS

NO.	I	II	III	IV	V	VI	VII
225	200	199	200	194	189	38	41
226	191	179	151	154	149	35	36
227	207	187	238	248	229	48	42
228	268	215	238	257	230	47	45
229	211	177	207	244	220	50	53
230	305	193	288	318	258	70	63
231	240	202	166	203	254	35	32
232	170	226	240	276	228	45	57
233	224	206	218	221	220	39	42
234	286	223	223	240	236	50	48
235	255	189	207	228	231	45	52
236	311	290	304	313	317	57	59
237	070	080	081	103	197	20	10
238	203	183	193	189	184	37	32
239	181	180	186	192	190	39	40
240	294	286	283	255	267	59	59
241	257	228	281	268	268	55	52
242	196	222	204	211	258	40	42
243	197	168	198	218	222	35	39
244	246	150	181	271	255	28	65
245	201	212	192	173	170	45	43
246	236	216	241	261	277	49	51
247	234	205	227	222	232	36	43
248	244	173	232	250	225	51	47
249	319	175	277	255	272	63	64
250	277	206	139	153	224	20	19
251	281	294	256	244	239	62	66
252	227	252	248	255	244	50	53

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NO.	I	II	III	IV	V	VI	VII
253	257	221	252	280	231	60	63
254	230	179	203	206	185	37	55
255	230	229	228	242	246	43	50
256	228	222	239	239	253	49	52
257	314	298	285	313	283	64	65
258	207	179	204	211	200	42	36
259	263	283	244	256	226	41	39
260	201	208	185	185	202	31	31
261	201	205	222	228	209	41	40
262	246	218	233	250	229	47	50
263	178	138	178	229	269	32	49
264	247	195	227	233	256	50	49
265	221	261	264	246	243	53	51
266	271	247	228	248	200	50	51
267	259	259	270	261	247	50	55
268	219	216	231	237	263	44	49
269	251	209	201	205	197	54	46
270	199	198	198	208	241	38	39
271	143	146	129	133	148	38	26
272	145	104	196	178	183	26	33
273	234	196	242	262	239	59	50
274	324	311	326	331	320	63	66
275	266	231	274	274	251	52	50
###		###	###	###	###	###	###
65675		60708	62284	65705	63134	12755	12901