STRAIGHT LINES AND CURVES

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Some capital letters are made up entirely of straight lines; others are made up entirely of curves or a combination of straight lines and curves. Of course, it does depend on the font being used. In the font being used in this article (Calibri), the all-straight-lines letters are AEFHIKLMNTVWXYZ; the curvy letters are BCDGJOPQRSU – summarised in this table:

Straight-line letters	A	E	F	H	I	K	L	M	N	T	V	W	X	Y	Z
Curvy letters		B	C	D	G	J	O	P	Q	R	S	U			

Another advantage of the Calibri font is that all the letters are sans-serif; none of them has the little flourishes (serifs) at the ends of lines (as demonstrated by the Cambria font here – AEFHIKLMNTVWXYZ), where it could be argued that the serifs should be counted as straight lines. Of course, if you print the letters in some really curvy variant, such as the Harlow Solid Italic font, all the letters become curvy, with not a straight line anywhere - thus, ABCDEFGHIJKLMNOPQRSTUVWXYZ. Anyway, for the remainder of this article, let's stick with the Calibri font.

I decided to search for the longest words composed entirely of straight-line letters. Here are 20 of the longest:

Word	Length	Dictionary
HEXAMETHYLENAMINE	17	OED
AFFINITATIVELY	14	OED
ALIMENTATIVELY	14	UWD
ANTEMILLENNIAL	14	W2
ANTENATALITIAL	14	OED
ANTIANTIENZYME	14	W2
HEMIMELLITENE	13	UWD
HEXAMETHYLENE	13	UWD
INATTENTIVELY	13	UWD
INFINITIVALLY	13	UWD

Word		
METAHEWETTITE	13	UWD
METHYLANILINE	13	UWD
METHYLENIMINE	13	UWD
NEMATHELMINTH	13	UWD
AFFINITATIVE	12	OED
ALIMENTATIVE	12	UWD
ANATHEMATIZE	12	UWD
ANNIHILATIVE	12	UWD
EFFEMINATELY	12	UWD
ETHYLENIMINE	12	UWD

Given that some letters are composed of anywhere from 1 to 4 straight lines, I wondered which words possess the greatest number of straight lines. Here's a table showing the number of straight lines in each of the straight-line letters:

A	E	F	H	I	K	L	M	N	T	V	W	X	Y	Z
3	4	3	3	1	3	2	4	3	2	2	4	2	3	3

Here are 20 words with the greatest number of straight lines:

Word	Straight lines	Dictionary
HEXAMETHYLENAMINE	52	OED
HEXAMETHYLENE	41	UWD
ANTIANTIENZYME	39	W2
METAHEWETTITE	39	UWD
HEMIMELLITENE	38	UWD
METHYLENIMINE	38	UWD
NEMATHELMINTH	38	UWD
ANTEMILLENNIAL	37	W2
ALIMENTATIVELY	36	UWD
AZIMETHYLENE	36	W2
EFFEMINATELY	36	UWD
ELEMENTALIZE	36	W2
HAHNEMANNIAN	36	W2
KEWEENAWITE	36	W2

Word		
ANATHEMATIZE	35	UWD
EFFEMINATIZE	35	W2
METHYLANILINE	35	UWD
NEMATELMINTH	35	W2
ANTENATALITIAL	34	OED
ELEMENTALITY	34	OED

And what about the longest words where all the letters have a curvy component? Because of the multiplicity of spellings of one particular word (COUSCOUS) and its plurals, I've expanded this selection to 30 of the longest words.

Word	Length	Dictionary
COUSCOUSSOUS	12	OED
COOSCOOSOOS	11	OED
COUSCOOSOOS	11	OED
COUSCOUSOUS	11	OED
COUSCOUSSOU	11	OED
COUSCOOSOO	10	OED
COUSCOUSOU	10	OED
CUSCOUSOUS	10	UWD
COROCOROS	9	OED
CURUCUCUS	9	UWD
CUSCOUSOU	9	UWD
OOSPOROUS	9	UWD
OUROBOROS	9	OED
SUBGROUPS	9	UWD
SUCCUBOUS	9	UWD
SURUCUCUS	9	UWD
UROPODOUS	9	UWD
CROUPOUS	8	UWD
CURUCUCU	8	UWD
ORDUROUS	8	OED
PRODRUGS	8	UWD

PROSODUS	8	UWD
PROSORUS	8	UWD
SOURPUSS	8	UWD
SUBGROUP	8	UWD
SUCCOURS	8	UWD
SUCCUBUS	8	UWD
SUDOROUS	8	OED
SURUCUCU	8	UWD
SUSURRUS	8	UWD

Can readers improve on any of the selections here? Or extend the concept in some way?

Reference sources:
UMW – Unabridged Merriam-Webster Dictionary (online)
OED – Oxford English Dictionary (online)
W2 – Webster's New International Dictionary, Second Edition