

# TRIANGULAR PROGRESSIONS

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Consider the word QUILLS. Arrange the letters, in order, to make a triangle:

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  Q
 U I
L L S

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Now assign the letters their numerical positions in the alphabet (A = 1, B = 2 etc). The result is Q = 17; U + I = 30, and L + L + S = 43. The difference between the 1<sup>st</sup> and 2<sup>nd</sup> rows (30 - 17) is 13 and, hey presto, the difference between the 2<sup>nd</sup> and 3<sup>rd</sup> rows is also 13 (43 - 30)!

Below are triangular representations of 6-letter words exhibiting two numerically-identical progressions. The progressions range from 1 to 30.

Unless specified otherwise, words can be found in the Oxford English Dictionary, Second Edition.

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|-----------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------|
| 1. (21.22.23)<br>U<br>N H<br>A R D<br>unhard  | 2. (16.18.20)<br>P<br>O C<br>K E D<br>pocked                      | 3. (16.19.22)<br>P<br>E N<br>A N G<br>Penang                         | 4. (19.23.27)<br>S<br>H O<br>R E D<br>shored - nb.transposals - Rhodes                | 5. (18.23.28)<br>R<br>H O<br>D E S<br>Rhodes             |
| 6. (18.24.30)<br>R<br>E S<br>I G N<br>resign  | 7. (16.23.30)<br>P<br>A V<br>I N G<br>paving                      | 8. (13.21.29)<br>M<br>A T<br>T E D<br>matted                         | 9. (18.27.36)<br>R<br>E V<br>E L S<br>revels                                          | 10. (19.29.39)<br>S<br>O N<br>N E T<br>sonnet            |
| 11. (25.36.47)<br>Y<br>O U<br>T H S<br>youths | 12. (11.23.35)<br>K<br>N I<br>G H T<br>knight                     | 13. (3.16.29)<br>C<br>O A<br>T E D<br>coated                         | 14. (11.25.39)<br>K<br>I P<br>P E R<br>kipper                                         | 15. (13.28.43)<br>M<br>I S<br>S E S<br>misses            |
| 16. (3.19.35)<br>C<br>R A<br>Z E D<br>crazed  | 17. (3.20.37)<br>C<br>A S<br>T L E<br>castle                      | 18. (1.19.37)<br>A<br>R A<br>N E R<br>Araner (inhabitant of Aran)    | 19. (4.23.42)<br>D<br>I N<br>E R S<br>diners                                          | 20. (2.22.42)<br>B<br>A U<br>L K S<br>baulks             |
| 21. (1.22.43)<br>A<br>M I<br>D S T<br>amidst  | 22. (19.41.63)<br>S<br>O Z<br>Z L Y<br>sozzly (sloppy - Chambers) | 23. (5.28.51)<br>E<br>N N<br>U Y E<br>ennuyé                         | 24. (5.29.53)<br>E<br>M P<br>T O R<br>emptor                                          | 25. (3.28.53)<br>C<br>O M<br>P L Y<br>comply             |
| 26. (3.29.55)<br>C<br>I T<br>R Y L<br>citril  | 27. (1.28.55)<br>A<br>M O<br>U N T<br>amount                      | 28. (2.30.58)<br>B<br>U I<br>S T S<br>buists<br>(tar marks on sheep) | 29. (7.36.65)<br>G<br>O U<br>T T Y<br>goutty<br>(Heraldry: 'be sprinkled with drops') | 30. (3.33.63)<br>C<br>O R<br>S S Y<br>corssy (corpulent) |

Can anyone discover a 10-letter word triangle exhibiting three numerically-identical progressions?