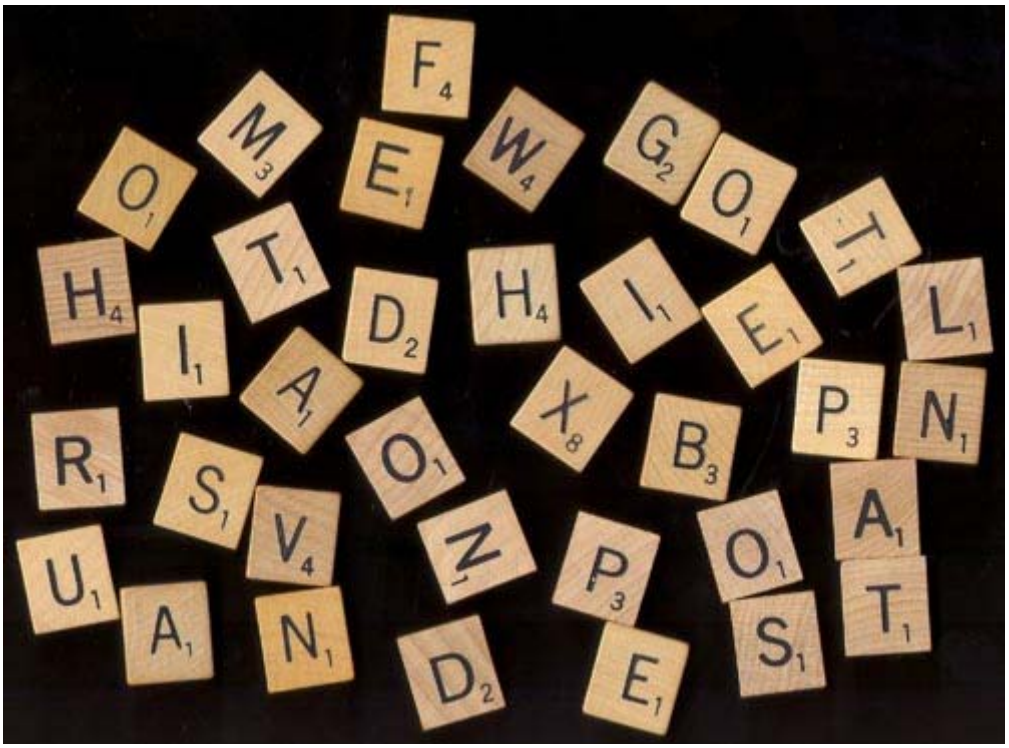
Cryptography Worksheet — Scrabble



Construct a graph of the frequency of scrabble letters in a set.

Construct a graph of the tile scores.

Comment on the similarities and differences.

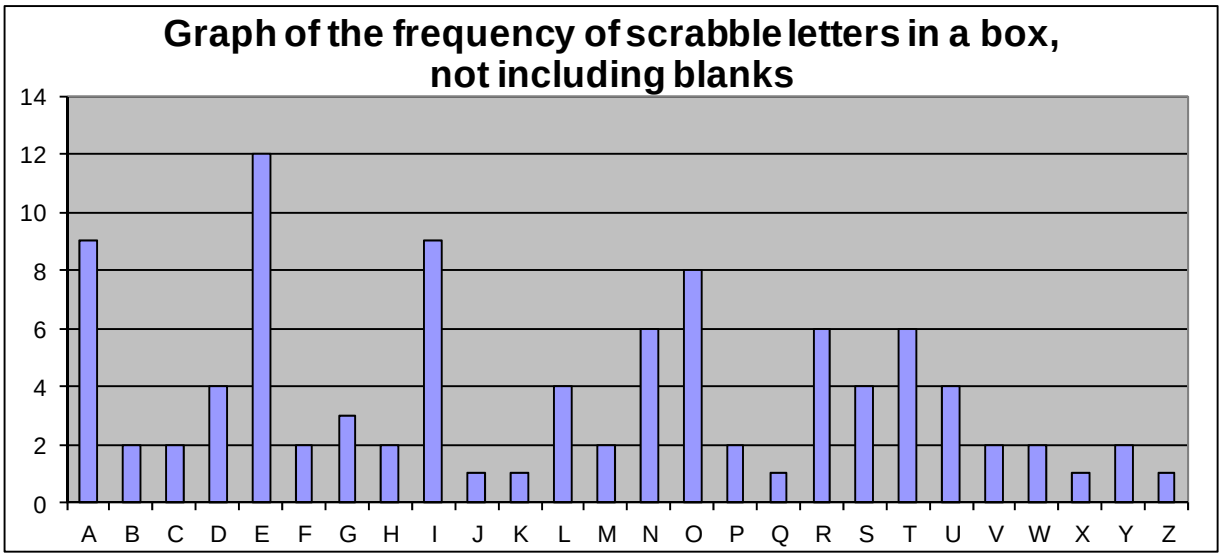
Why do you think this is?

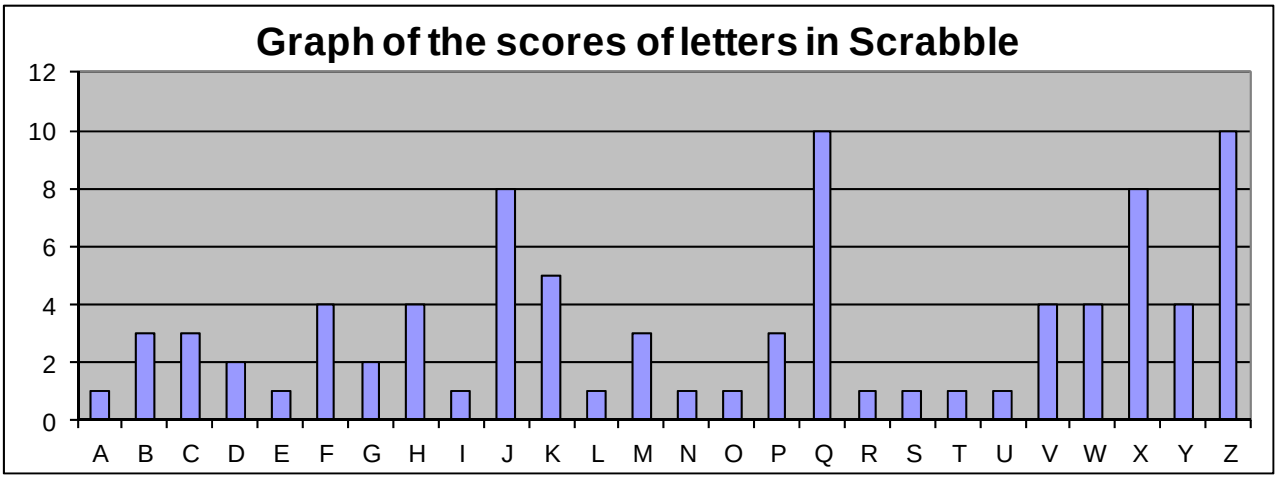
Frequency and values of Pieces in Scrabble

1 point: E ×12, A ×9, I ×9, O ×8, R ×6, N ×6, T ×6, L ×4, S ×4 U ×4
2 points: D ×4, G ×3
3 points: B ×2, C ×2, M ×2, P ×2
4 points: F ×2, H ×2, V ×2, W ×2, Y ×2
5 points: K ×1
8 points: J ×1, X ×1
10 points: Q ×1, Z ×1

Teacher's Notes — Scrabble and Letter Frequencies

This is a trivial exercise of frequency analysis, and possibly of no interest to the higher ability, who should just attempt the "Breaking the Code" activity from scratch.





Clearly there is an inverse relation between the scores and the frequency. This is because the least common letters appear less often, so are worth more points.

If a pupil is struggling to see the relationship, then they could construct a graph for 1/score instead.