

Coding Conundrums

Number two in a series of more than one. Definitely.

2.1 Crazy Times Tables

A teacher friend wants to be able to print out stupid times-tables for their kids at school. Perhaps they are not a maths teacher. I have no idea. Anyhoo, the program should request the number of the table (for example the 3.7 times table) and then print out 1 to 12 times that value:

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What times table do you want? 3.7
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1 times 3.7 is 3.7
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2 times 3.5 is 7.4
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..and so on
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The teacher tells you that the 0 times table and the 1 times table are too easy and the program should reject those, but any other value (including negative ones) is OK.

2.2 Scrabble™ Scores

Scrabble™ is a word game. Players take turns to make words out of letter tiles. Each tile has a particular value. Generally, the rarer the letter in words, the higher the value. The tiles have the following values:

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

I want a program that will tell me how much a given word is worth in Scrabble™. Turns out that Rob Miles is worth 12 points, I'd like to be able to find out if anyone else has a name worth more than mine.

2.2 Scrabble™ Validity Tester

Staying with Scrabble. A standard Scrabble™ set contains the following set of tiles:

A-9. B-2. C-2. D-4. E-12. F-2. G-3. H-2. I-9. J-1. K-1. L-4. M-2. N-6. O-8. P-2. Q-1. R-6. S-4. T-6. U-4. V-2. Plus two blanks which can be assigned any letter when they are played.

For extra bonus points you could improve your program so that it indicates whether or not the word could actually entered during the game. The program could also indicate whether or not a blank tile is required.

Rob Miles

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