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MITx: 6.00.1x Introduction to Computer Science and Programming Using Python

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WORD SCORES (10 points possible)

The first step is to implement some code that allows us to calculate the score for a single word. The function `getWordScore` should accept as input a string of lowercase letters (a *word*) and return the integer score for that word, using the game's scoring rules.

A Reminder of the Scoring Rules

HINTS

- You may assume that the input `word` is always either a string of lowercase letters, or the empty string `""` .

- You will want to use the `SCRABBLE_LETTER_VALUES` dictionary defined at the top of `ps4a.py` . You should not change its value.

- Do **not** assume that there are always 7 letters in a hand! The parameter `n` is the number of letters required for a bonus score (the maximum number of letters in the hand). Our goal is to keep the code modular - if you want to try playing your word game with *n=10* or *n=4*, you will be able to do it by simply changing the value of `HAND_SIZE` !

- **Testing:** If this function is implemented properly, and you run `test_ps4a.py` , you should see that the `test_getWordScore()` tests pass. Also test your implementation of `getWordScore` , using some reasonable English words.

Fill in the code for `getWordScore` in `ps4a.py` and be sure you've passed the appropriate tests in `test_ps4a.py` before pasting your function definition here.

Canopy specific instructions: If you modify code in `ps4a.py` go to

```
Run -> Restart Kernel (or hit the CTRL with the dot on your keyboard)
```

before running `test_ps4a.py` . **You have to do this every time you modify the file** `ps4a.py` **and want to run the file** `test_ps4a.py` , otherwise changes to the former will not be incorporated in the latter.

```
 1 def getWordScore(word, n):
 2     """
 3     Returns the score for a word. Assumes the word is a valid word.
 4
 5     The score for a word is the sum of the points for letters in the
 6     word, multiplied by the length of the word, PLUS 50 points if all n
 7     letters are used on the first turn.
 8
 9     Letters are scored as in Scrabble; A is worth 1, B is worth 3, C is
10     worth 3, D is worth 2, E is worth 1, and so on (see SCRABBLE_LETTER_VALUES)
11
12     word: string (lowercase letters)
13     n: integer (HAND_SIZE; i.e., hand size required for additional points)
14     returns: int >= 0
15     """
16     # TO DO     <-- Remove this comment when you code this function
```

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