ACM Challenge: Scrabble AI

Your mission, should you choose to accept it, is to create a Scrabble AI that can find the best Scrabble move for any Scrabble board and tiles in hand. Your program will read in a Scrabble board and tiles in hand from stdin, then output the best Scrabble move to stdout.

(If you are awesome, you will then create an AI that takes into account rack balancing and other strategies.)

1   Board Format

Sample test files are available at somedir/testcases/test*.txt
   They look like this:

```
SCRBL_RACK: XARTH**
SCRBL_BOARD:

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ O*_ _ _ _ _ _ _
_ _ _ _ _ _ _ U P _ _ _ _ _ _
_ _ _ _ _ _ _ T O _ _ _ _ _ _
_ _ _ _ R _ _ W E B _ _ _ _ _
_ _ _ _ E _ _ A T E _ _ _ _ _
G _ _ _ Q _ _ R _ E*_ _ _ _ _
U _ S Q U A*W S _ S _ _ _ _ _
L A W _ I*_ _ _ _ W _ _ _ _ _
_ H A _ T _ _ _ _ A _ _ _ _ _
_ _ R _ A _ _ _ _ X _ _ _ _ _
_ _ T*_ L*_ _ _ _ _ _ _ _ _ _
_ _ H _ _ _ _ _ _ _ _ _ _ _ _
T E S S E R A _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _
```

   A '*' in the rack string indicates you have a blank tile. A '*' on the board following a letter indicates that letter was played as a blank tile (and so it counts for 0 points.) For example, in this board someone played BEESWAX going south and used a blank tile for an 'E'.

2   Move Format

After reading in this file, your AI will then output a scrabble move. It can output extra junk so long as a move in this format appears on some line.
   Move Format: "SCRBL_MOVE: (tiles_used) (ROW, COL, word_played, EAST | SOUTH)"
   Example: "SCRBL_MOVE: (EQURRY) (4, 4, EQUERRY, EAST)"

A Scrabble Board has 15 rows and 15 columns, so ROW = 0,1,...,14, and COL = 0,1,...,14. The ROW and COL indicate where the word formed begins, NOT necessarily where you placed your first tile. For example, if "new" is on the board and you play "renew" then ROW and COL are where the 'r' in "renew" appears.

In rare cases this can appear ambiguous, for example:

```
SCRBL_RACK: PUMMEL*
SCRBL_BOARD:

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- - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -
- - - - - - - H A M - - - - -
- - - - - - - A - A - - - - -
- - - - - - - M A - - - - - -
- - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -
```

You can play a 'P' to form MAP twice. Which 'M' is the start of your play? Don't worry about it, either one will work.

3 Dictionary

You will use the Official Scrabble Player's 2nd Edition Dictionary. It is available as a plaintext file at somedir/dict/OSPDv2.txt

4 Letter and Word Bonuses

Your AI must, of course, calculate points with the bonuses taken into account. The layout of a Scrabble board can be easily googled,