Assignment 2: Evil Hangman

Evil Hangman is a computer program that cheats at the classic game of Hangman. Normally, the computer picks a single word and accurately represents it as the human player tries to guess all the letters. In Evil Hangman, the computer instead maintains a large list of words, then continuously pares down the word list to try to dodge the player's guesses.

Instructions

Start with your improved hangman program, then implement the evil hangman program described above. A words.txt file is included with these instructions in Jupiter Ed.

Your program should:
- Read words from a file
- Determine the number of letters in the starting word. You can do this by any method, including:
  - Generating a random number
  - Picking a random word and using its length
  - Let the player choose a word length
- Pare down the list of words to only include words of the chosen length
- When the player makes a guess, try to pare down the list of words by removing all words containing the guessed letter
- If there are words remaining after paring down the list, then tell the player their guess was incorrect and update your word list
- If there aren't any words remaining after paring down your list, then choose a word at random from the list before paring down. Use this word to continue playing hangman in the normal way.

Here is an example of what playing the game could look like.

```
Let's play hangman!

_ _ _ _ _ _ _

Incorrect guesses:
You have 10 guesses left.
135 possible words remain.
Guess a letter: a
Sorry, a is not in the word.

_ _ _ _ _ _ _

Incorrect guesses: a
You have 9 guesses left.
72 possible words remain.
Guess a letter: u
Sorry, u is not in the word.

_ _ _ _ _ _ _

Incorrect guesses: a, u
You have 8 guesses left.
53 possible words remain.
Guess a letter: i
Sorry, i is not in the word.

_ _ _ _ _ _ _

Incorrect guesses: a, u, i
You have 7 guesses left.
16 possible words remain.
Guess a letter: o
Sorry, o is not in the word.

_ _ _ _ _ _ _

Incorrect guesses: a, u, i, o
You have 6 guesses left.
9 possible words remain.
Guess a letter: e
Good guess! e is in the word.

_ _ e _ _ e _ _

Incorrect guesses: a, u, i, o
You have 6 guesses left.
1 possible word remains.
Guess a letter: r
Good guess! r is in the word.

_ _ e _ _ e r _

Incorrect guesses: a, u, i, o
You have 6 guesses left.
1 possible word remains.
Guess a letter: s
Good guess! s is in the word.

s _ e _ _ e r s
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s _ e _ _ e r s

Incorrect guesses: a, u, i, o
You have 6 guesses left.
1 possible word remains.
Guess a letter: t
Good guess! t is in the word.

s _ e _ t e r s

Incorrect guesses: a, u, i, o
You have 6 guesses left.
1 possible word remains.
Guess a letter: h
Sorry, h is not in the word.

s _ e _ t e r s

Incorrect guesses: a, u, i, o, h
You have 5 guesses left.
1 possible word remains.
Guess a letter: l
Sorry, l is not in the word.

s _ e _ t e r s

Incorrect guesses: a, u, i, o, h, l
You have 4 guesses left.
1 possible word remains.
Guess a letter: c
Good guess! c is in the word.

s _ e c t e r s

Incorrect guesses: a, u, i, o, h, l
You have 4 guesses left.
1 possible word remains.
Guess a letter: p
Good guess! p is in the word.
Congratulations! You guessed the word: specters
(.venv) $
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