Work with your neighbor. (This will be graded for participation only.)

1. The definition for a simple `Word` class is given below:

```
class Word:
    def __init__(self, text):
        # store a "clean" version of the string text
        # strip off punctuation and convert to lowercase
        self._word = text.strip(".!:;,?-").lower()

    def __str__(self):
        return "Word(" + self._word + ")"
```

Here is an example usage:

```
>>> a = Word("-Hello!!")
>>> str(a)
'Word(hello)'
```

   a) **Helper method:** Create a method `clean_word(self, text)` that takes a string `text` with punctuation, strips it, and converts it to lowercase.

   b) **Modify** `__init__()` to use the new method.

2. What is a reference? If a variable `x` is a reference to a list (array), does `x` actually contain the list?

3. We said that the line of code

```
x = [1,2,3,4,5]
```

is executed in two steps. What are these steps?

4. Draw the data structure diagram (that is, the reference diagram) for the following:

[[1,0, 0], [0,1,0], [0,0,1]]

Discuss with your group. Make sure everyone can see the diagram and that you agree on the diagram!

5. Draw the diagrams for the following:

```
x, y = "ab", 12
```

```
z = [x,y]
```