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### 15-121 Fall 2019 Quiz 4

Up to 21 minutes. No calculators, no notes, no books, no computers. Show your work!

1. (10 points) **Free Response:** Consider a file containing words separated by commas. The number of words per line is not fixed. You may assume that all lines will contain at least one word. Write the public static method `sWordSum` which, given a filename, returns the sum of the length of all of the words in the file which start with the lowercase letter 's'.

If you would like, you may assume you can use the `public static Scanner getFileScanner(String filename)` method given in the notes. (Do **not** rewrite it here, just use it.)

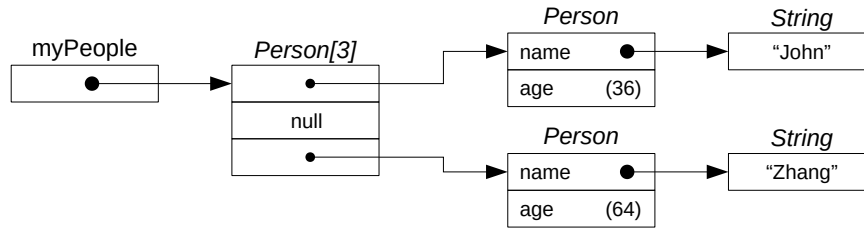
If there is an error opening the file, return `-1`.

Consider this example. If `input.txt` contains the following:

```
land,spiders,apparatus,sweltering
thoughtless
modern,wax,colour
crack,alike,level,smooth
```

Then `sWordSum("input.txt")` would return `23`.

2. (5 points) **Code From Picture:** Consider the following image:



Assuming the `Person` class exists and has a constructor that takes `name` and `age` as arguments, write the appropriate lines of code to allocate what you see pictured above. Your code does not need to be inside of a method or a class.

3. (5 points) **Code Tracing:** Indicate what the following program prints. Place your answer (and nothing else) in the box under the code.

```
public class Quiz4CT {
    public int myFunc(int num) {
        int sum = 0;
        try {
            int i = 0;
            for (i = num; i > 0; i -= 2) {
                sum += num;
            }
            int b = 5 / i;
            System.out.println("b: " + b);
        } catch (Exception e) {
            System.out.println("Boom!");
        }
        return sum;
    }
    public static void main(String[] args) {
        Quiz4CT ct = new Quiz4CT();
        System.out.println("val 1: " + ct.myFunc(5));
        System.out.println("val 2: " + ct.myFunc(6));
    }
}
```