

Name(s): _____

1. Mark all options that are considered an Input Streams in Java:

- | | | |
|-------------------------------------|---|--|
| <input type="checkbox"/> System.out | <input type="checkbox"/> System.in | <input type="checkbox"/> String |
| <input type="checkbox"/> File | <input type="checkbox"/> FileOutputStream | <input type="checkbox"/> FileInputStream |

2. Write the exact output of the program below, if we run it.

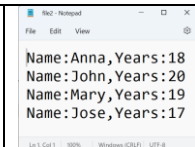
```
public static void example4() {
    String line = "This is a message\nComposed by\nThree lines";
    Scanner scanner = new Scanner(line);
    int tokenCounter = 0;
    while(scanner.hasNext()) {
        tokenCounter++;
        System.out.println(scanner.next());
    }
    System.out.println(tokenCounter);
}
```

3. Write the exact output of the program below, if we run it.

```
public static void example5() {
    String line = "This is a message\nComposed by\nThree lines";
    Scanner scanner = new Scanner(line);
    int tokenCounter = 0;
    while(scanner.hasNext()) {
        tokenCounter++;
        System.out.println(scanner.nextLine());
    }
    System.out.println(tokenCounter);
}
```

4. Assuming that you have a class Person with the following constructor and a txt file with the following format, analyze the code below and explain if it is correct or incorrect.

```
public Person(String name, int years) {
    setName(name);
    setYearsOld(years);
}
```



```
Name:Anna,Years:18
Name:John,Years:20
Name:Mary,Years:19
Name:Jose,Years:17
```

```
public static ArrayList<Person> readFilePerson(String fileName) {
    ArrayList<Person> list = new ArrayList<>();
    try {
        Scanner fileIn = new Scanner(new File(fileName));
        String name = "";
        int years = 0;
        while(fileIn.hasNext()) {
            String line = fileIn.nextLine();
            Scanner sLine = new Scanner(line);
            sLine.useDelimiter(",");
            String nameS = sLine.next();
            String yearsS = sLine.next();
            name = nameS.substring(0, nameS.indexOf(":"));
            years = Integer.parseInt(yearsS.substring(yearsS.indexOf(":")+1));
            Person p = new Person(name, years);
            list.add(p);
        }
    } catch (IOException ex) {
        System.err.print("Error reading file!");
        ex.printStackTrace();
    }
    return list;
}
```