1. Consider the lines of code (you may assume they are part of a program which compiles with no syntax errors):

```java
String s = "hello";
System.out.println(s);
int x = 4; double y = 5.6; char z = ‘R’;
System.out.println(x+y);System.out.println(s+z);
y = y+x;
System.out.println(x);
System.out.println(x+y+s);
```

(a) (1 point) How many statements are in the code above?

**Solution:** 10

(b) (5 points) What is the output from the code above?

**Solution:**

```
hello
9.6
helloR
4
13.6
```

2. (2 points) As we learned in class, many different datatypes can be used to represent “whole numbers” and each uses a different amount of storage. Rank the datatypes `byte`, `int`, `long`, and `short` from largest to smallest in terms of the number of “whole numbers” the datatype can represent. In other words, the datatype which can represent the most numbers should come first in your list.

**Solution:** long (64bits), int(32bits), short(16bits), and byte(8bits)

3. (1 point) In your own words, what does the Linux command `ls` do?

**Solution:** It displays a list of the contents of the current (working) directory.
4. (6 points) Consider the following program (with helpfully included line numbers) which contains three different syntax errors. Identify the errors and (briefly!) explain the error. Be specific! It is not enough to say something like, “Line 1 contains a spelling error.”

```java
1  public class Quiz01 {
2    public static void main(String[] args) {
3        string s = "Hello";
4        int x = 4; //x = x + 4;
5        int z = 4.5;
6        x = x + y;
7    }
8  }
```

**Solution:** Line 4: `string` not capitalized. Should be `String`
Line 8: trying to assign a `double` value (4.5) to an `int` variable (z)
Line 10: using a variable (y) which hasn’t been defined/declared.