

# CSE110 Review Questions

Prepared by Ryan Dougherty

## 1 Data Types

**Question 1** Give the output of the following program:

```
public class Example {
    public static void main(String[] args) {
        int y = 2, z = 1;
        z = y * 2;
        System.out.print(y + z);
    }
}
```

**Question 2** Consider the following program:

```
public class Example {
    public static void main(String[] args) {
        String str = new String("Arizona state university");
        char ch1 = str.toLowerCase().toUpperCase().charAt(0);
        char ch2 = str.toUpperCase().charAt(8);
        char ch3 = str.toUpperCase().charAt(str.length() - 1);
        System.out.println("character 1 is: " + ch1);
        System.out.println("character 2 is: " + ch2);
        System.out.println("character 3 is: " + ch3);
    }
}
```

What will be the output?

**Question 3** Consider the following program:

```
public class Example {
    public static void main(String[] args) {
        int num1 = 4, num2 = 5;
        System.out.println("4" + "5");
        System.out.println(num1 + num2);
        System.out.println("num1" + "num2");
        System.out.println(4+5);
    }
}
```

What will be the output?

**Question 4** Which of the following invokes the method `length()` of the object `str` and stores the result in `val` of type `int`?

- a) `int val = str.length();`
- b) `int val = length.str();`
- c) `int val = length().str;`
- d) `int val = length(str);`

**Question 5** Evaluate each of the following expressions.

```
String s = "Programming is Fun";
String t = "Workshop is cool";
a) System.out.println(s.charAt(0) + t.substring(3, 4));
b) System.out.println(t.substring(7));
```

**Question 6** Evaluate each of the following expressions.

```
int j = 11;
int k = 3;
String s = "Ford Rivers";
a) j / k
b) j \% k
c) s.substring(1, 5)
d) s.length()
e) s.charAt(3)
```

**Question 7** True or False? The type `char` is a primitive data type.

**Question 8** True or False? The type `String` is a primitive data type.

**Question 9** Write a Java program that asks the user for the radius of a circle and finds the area of the circle.

**Question 10** Write a Java program that prompts the user to enter 2 integers. Print the smaller of the 2 integers.

**Question 11** Write the output of the following program:

```
public class Question {
    public static void main(String[] args) {
        String str = "hello";
        System.out.println("abcdef".substring(1, 3));
        System.out.println("pizza".length());
        System.out.println(str.replace('h', 'm'));
        System.out.println("hamburger".substring(0, 3));
        System.out.println(str.charAt(1));
        System.out.println(str.equals("hello"));
        System.out.println("pizza".toUpperCase());
        System.out.println(Math.pow(2, 4));
        double num4 = Math.sqrt(16);
        System.out.println(num4);
    }
}
```

**Question 12** Write the output of the following program:

```
public class Question {  
    public static void main(String[] args) {  
        String s1 = new String("Clinton, Hillary");  
        String s2 = new String("Obama, Barack");  
        System.out.println(s1.charAt(2));  
        System.out.println(s1.charAt(s1.length() - 1));  
        System.out.println(s2.toUpperCase());  
        System.out.println(s2.substring(s2.indexOf(",") + 2, s2.length()));  
    }  
}
```

**Question 13** What value is contained in the integer variable length after the following statements are executed?

```
length = 5;  
length += 3;  
length = length * 2;
```

**Question 14** What is the result of 2/4 when evaluated in Java? Why?