CSE110 Review Questions
Prepared by Ryan Dougherty

Data Types

Question 1   Give the output of the following program:

```java
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:

```java
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:

```java
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:

```java
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?

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

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