1. What will be the result of the following code: int a = 3.5;
2. What will the result be of the following code: int a1 = 5; double a2 = (float)a1;
3. What will the result be of the following code: class A { public static void main(String [] args) {B b = new A(); }} class B extends A {}
4. What is an instanceof
   a) A methods in object
   b) An operator and keyword
5. Can you compare a boolean to an integer?
6. If class A implements an interface does it need to implement all methods of that interface?
7. You execute the code below in an empty directory. What is the result? File f1 = new File("dirname"); File f2 = new File(f1, "filename");
   a) A new directory called dirname is created in the current working directory
   b) A new directory called dirname is created in the current working directory. A new file called filename is created in directory dirname
   c) A new directory called dirname and a new file called filename are created, both in the current working directory
   d) A new file called filename is created in the current working directory
   e) No directory is created, and no file is created

Code Questions:

1. "Write a program that prints the numbers from 1 to 100. But for multiples of three print “Java” instead of the number and for the multiples of five print “Rulz”. For numbers which are multiples of both three and five print “JavaRulz”."

2. Complete the following

```
public class ProgrammerTaskB {

   public static boolean isPalindrome(String s) {
      /*
       Definition: A palindrome is a string that reads the same forward and backward.
       For example, "abcba" is a palindrome, "abab" is not.
       Please implement this method to
       return true if the parameter is a palindrome and false otherwise.
      */
   }
}
```

3. Complete the following

```
public class ProgrammerTaskA {

   public static int getCountOfOnes(int n) {
      /*
       Please implement this method to
       return the number of '1's in the binary representation of n
       for any integer n, where n > 0

       Example: for n=6 the binary representation is '110' and the number of '1's in that
       representation is 2

      */
   }
}
```