Question 1 ........................................................................................................ (5 points)
Write a complete Java program that prints “Hello world”.

Question 2 ........................................................................................................ (2 points)
Write the Java code that defines ANSWER to be a constant with the integer value 42.

Question 3 ........................................................................................................ (3 points)
Complete the following method by inserting only one return statement:

```java
/**
* Computes a boolean value from two integers.
* @return true, if -10 <= j <= 10 or k is non-negative; false, otherwise.
*/
public static boolean weird(int j, int k) {
    return ...
}
```
Question 4 ................................................................................................. (5 points)

The following code is intended to convert degrees Celsius to degrees Fahrenheit:

    double degreesC = 10;
    double degreesF = (9/5)*degreesC + 32;

(a) [2 points] What value of \texttt{degreesF} is computed?
(b) [2 points] Modify this code to compute the correct value.
(c) [1 point] Add a statement that prints the value of \texttt{degreesF}.

Question 5 ................................................................................................. (5 points)

Complete the following method:

    /**
     * Returns the n’th power of x, computed using only multiplication.
     * That is, computes x, x*x, and so on, up to the specified power n.
     * @param x the number to raise to the n’th power.
     * @param n the power of x, a non-negative integer.
     * @return x raised to the power n.
     */
    public static double power(double x, int n) {
        }

Question 6 ................................................................................................. (5 points)

Complete the following method:

    /**
     * Compares two values.
     * @return -1, if x less than y; 0, if x equals y; 1, if x greater than y.
     */
    public static int compare(double x, double y) {
        }
Question 7 ............................................................... (5 points)
  Complete the following method:

    /**
     * Returns the largest (the maximum) of the four specified values.
     */
    public static double max(double a, double b, double c, double d) {

    }

Question 8 ............................................................... (5 points)
  Circle and describe all errors in the following program fragment:

    double firstValue;
    double 2ndValue = firstValue;
    if (firstValue=2ndValue) {
        System.out.println("equal")
    } else
        System.out.println("not equal");
    }
Question 9 ...........................................................................(15 points)

Implement all methods for the following class:

```java
/**
 * A student record with name, grade average, and number of grades.
 */
public class Student {

/**
 * Constructs a student with the specified name.
 */
public Student(String name) {
}

/**
 * Adds the specified grade for this student.
 */
public void addGrade(double grade) {
}

/**
 * Gets the name for this student.
 */
public String getName() {
}

/**
 * Gets the grade average for this student. (All grades have equal weight.)
 */
public double getAverage() {
}

/**
 * Gets the number of grades for this student.
 */
public int countGrades() {
}

/**
 */
```
* Determines whether this student equals the specified student.
* Two students are equal if they have the same name, grade average,
* and number of grades.
*/
public boolean equals(Student s) {

}

/**
* Returns a clone of this student with the specified name.
* The clone may (or may not) have a different name, but has the
* same average and number of grades as this student.
*/
public Student clone(String name) {

}

// declare
// private
// fields
// here

/**
* Using the methods defined above,
* (1) constructs a record for a student named "Bill", (2) adds two
* grades to Bill’s record, (3) creates a clone of Bill named "Jill",
* and (4) and prints whether records for Bill and Jill are equal.
*/
public static void main(String[] args) {

}