AP COMPUTER SCIENCE - TEST #1
SECTION II
Number of Questions — 3
Percent of total test grade — 50

Directions: Please complete the following program according to the specification given. Partial credit will be given for incomplete answers, so provide as much of the answer as you can.

Remember that all program segments are to be written in Java.

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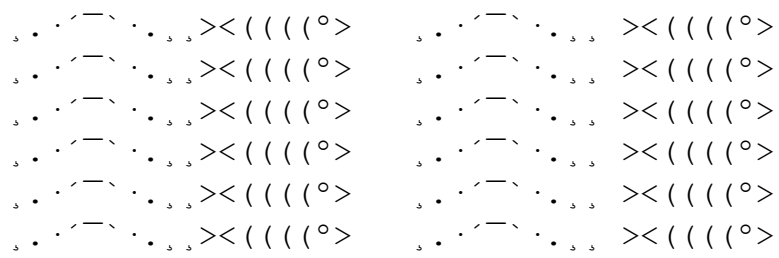
1. Consider the following program output:



Fill in the blanks in the following program so that it correctly produces the above output. You must not leave any blanks empty. You **must** use the CLASS_CONSTANTS called `WIDTH` and `HEIGHT` in your `for` loops.

```
public class FishInAStream {

     __________________ WIDTH = _________________ ;

     __________________ HEIGHT = _________________ ;

     public static void drawWaterAndFish() {
          System.out.print("   ¸.·´¯`·.¸¸ ><((((°>");
     }

     public static void main(String[] args) {

          for (                                    ) {


               for (                                    ) {

                    drawWaterAndFish();
               }


               ____________________________________________

          }
     }
```

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2. Suppose there is a high school with five AP classes: Biology, Chemistry, English, Spanish, and of course, Computer Science. We would like to compute the average (mean) class size of the AP classes (remember that the *mean average* is what you get when you add up the values and then divide by the number of values).

   Consider the following incomplete program, which includes several variables containing class sizes for different classes:

```
public class AverageAPClassSize {

      public static void main(String[] args) {

            int studentsInAPBiology = 11;
            int studentsInAPChemistry = 4;
            int studentsInAPComputerScience = 28;
            int studentsInAPEnglish = 37;
            int studentsInAPSpanish = 37;

            int numberOfClasses = 5;

            /* compute average AP class size */




            ____________________________________________

            System.out.println(
              "The average AP class size is " + average);
      }
}
```

Fill in the blank provided with one or more Java statements that computes the average population for the AP classes. You must declare a new variable called `average` and use all of the other variables to compute this average, with accuracy up to at least one decimal place (so the output is `"The average population is XXXXXX.X..."`). You are not allowed to use any other `System.out.println` statements besides the one already provided for you.

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3. Write nested `for` loops to produce the following output:

```
1
22
333
4444
55555
666666
7777777
```

You **must use nested** `for` **loops** (a `for` loop inside a `for` loop). You do not need to write a complete program (class header or method header). Write your Java code below:

END OF SECTION II.