1. Given the following code:
   ```java
   int a = 2;
   int b = 3;
   double x = 2.0;
   double y = 1.5;
   double[] list = new double[3];
   list[0] = 4.5;
   list[1] = 8.3;
   list[2] = 0;
   ```

   a) Draw a diagram depicting the contents of the array list.

   b) For each of the following assignments, if the code is legal Java, redraw the diagram from (a) and circle the element modified by the assignment; otherwise write “ERROR.”

   - list[1] = x;
   - list[b] = 4;
   - list[b - a] = 3;
   - list[x] = a;

2. Show the output produced by the following code fragment:

   ```java
   double[] list = new double[4];
   for (int i=0; i < list.length; i++)
       list[i] = i + 2;
   
   for (int i=list.length - 1; i >= 0; i--)
       System.out.println(list[i]);
   ```

   Output:
1. Given the following code:
   ```java
   int a = 3;
   int b = 2;
   double x = 2.0;
   double y = 1.5;
   double[] list = new double[4];
   list[0] = 2.4;
   list[1] = 7.8;
   list[2] = 10;
   list[3] = -1;
   ```
   a) Draw a diagram depicting the contents of the array list.

   b) For each of the following assignments, if the code is legal Java, redraw the diagram from (a) and circle the element modified by the assignment; otherwise write “ERROR.”
   ```java
   • list[3] = x;
   • list[b] = y;
   • list[b - a] = 3;
   • list[1] = -6;
   ```

2. Show the output produced by the following code fragment:
   ```java
   double[] list = new double[4];
   for (int i=0; i < list.length; i++)
       list[i] = i * 10;
   for (int i=list.length - 1; i >= 0; i--)
       System.out.println(list[i]);
   ```