COS126 Methods Activity - 2.1

- Group Activity: Static Methods, Standard Input, Arrays

1. Below is a program `Maxi` which inputs three integers `x, y, z` **from standard input**, and calls a function `max3()` which takes 3 integer arguments and returns the value of the largest one. It then uses that largest integer as the denominator with the original inputs to create three quotients and prints the largest of the three quotients. (Assume the function `max3` is also in the class `Maxi`.)

```
public class Maxi {
   // methods will go here

   public static void main(String[] args) {
      // Input three integers from standard input
      int num1 = StdIn.readInt();
      int num2 = StdIn.readInt();
      int num3 = StdIn.readInt();

      // Call the function max3(a, b, c) to find the largest
      int largest = max3(num1, num2, num3);

      // make three quotients with largest as the denominator
      double q1 = (double) num1 / largest;
      double q2 = (double) num2 / largest;
      double q3 = (double) num3 / largest;

      // print the largest quotient
      // What will this program always print?
      System.out.println(max3(q1, q2, q3));
   }
}
```

2. Write the function `max3()` to return the largest of three integers. (**Exercise 2.1.1**)

```
public static __________ max3(_____________________________________) {









}
```

3. Write another function `max3()` to return the largest of three doubles. (**Exercise 2.1.1**)

```
public static __________ max3(_________________________________) {









}
```

4. Write a method `reverse1()` that takes a String array as an argument, and returns a new String array which holds the reverse of the argument array. DO NOT ALTER the original array. (**Web Exercise 2.1.35**)

```
public static _______ reverse1(___________________________________) {









}
```

5. Use the code from page 89 or Booksite Ex.1.4.4 to write a function `reverse2()` to reverse the elements in a String array. The array is an argument of the method. The method does not return anything. It reverses the original array. (**Web Exercise 2.1.35**)

Recommended book exercises: 2.1.3, 2.1.4, 2.1.13, 2.1.14