

Rite of Passage Practice - Logic

Program Tracing

Consider the following method.

```
public void ifElseMystery1(int x, int y)
{
    int z = 4;
    if (z <= x)
    {
        z = x + 1;
    }
    else
    {
        z = z + 9;
    }
    if (z <= y)
    {
        y++;
    }
    System.out.println(y + " " + z);
}
```

For each call below, indicate what output is produced.

<u>Method Call</u>	<u>Y</u>	<u>Z</u>
ifElseMystery1(3, 20);	21	13
ifElseMystery1(4, 5);	6	5
ifElseMystery1(5, 5);	5	6
ifElseMystery1(6, 10);	11	7

Program Writing

Write a method named `numUnique` that takes three integers as parameters and that returns the number of unique integers among the three.

For example, the call `numUnique(18, 3, 4)` should return 3 because the parameters have 3 different values. By contrast, the call `numUnique(6, 7, 6)` would return 2 because there are only 2 unique numbers among the three parameters: 6 and 7.

```
public int numUnique(int a, int b, int c)
{
    if(a == b && b == c)        // all the same #
    {
        return 1;
    }
    else if(a != b && b != c && a != c) // all different #'s
    {
        return 3;
    }
    else
    {
        return 2;
    }
}
```