# Lab 02: Math Methods #2

Here we'll be using math methods in a more advanced way.

## Exercises

1. As the user for 2 positive integers. Then print 100 random numbers between them (inclusive). Note: the user might not put the smaller one first.

```
Enter a positive integer: 27
Enter another positive integer: 14
17 26 14 18 15 21 27 15 19 19 27 18 15 (keep going...)
```

2. Ask the user for the radius and then the height of a cylinder. Next, print out the cylinder's volume. (Should you scan a double or int?)

3. You'll be replicating the distance formula. Ask the user for the coordinates of 2 points (decimals allowed). Then print the distance between those points.

```
Enter x1: 2
Enter y1: 3
Enter x2: 5
Enter y2: 7
Distance between points = 5.0
```

4. You'll be solving the quadratic formula. Ask the user for the a, b, and c values. Then print BOTH x-intercepts as formatted below. Inputs may be doubles. Note: if the computer prints "NaN" that means the inputs resulted in non-real numbers. Just try with new numbers.

```
Enter a-value: 2
Enter b-value: -14
Enter c-value: 24
x1 = 4.0
x2 = 3.0
```

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$