CSCI 206 Lab	Date: 19 Nov 2018
Lab11	Due: 30 Nov 2018
Please submit your lab in your lecture section on Moodle.	

Notes:

- Make sure to use variable names that make sense.
- Add comments to document your code. Comments are not optional.
  - Use a one-line comment before each block to describe what you are doing – don't describe the code syntax, but rather the purpose of the code. These comments should effectively describe the steps in your "algorithm."
- Use blank lines here and there to separate logical steps in your code
- Spell things carefully, including capitalization, since Java is fussy about that
- Indent things carefully
- Check your results! Testing your code is IMPORTANT!

Write a Java program to take the input of 5 numbers and output the mean (average) and standard deviation of the numbers.

If the numbers are x1, x2, x3, x4, and x5, the formula for mean is

X = (x1 + x2 + x3 + x4 + x5)/5

And the formula for standard deviation is

$$s = \sqrt{\frac{(x_1 - x)^2 + (x_2 - x)^2 + (x_3 - x)^2 + (x_4 - x)^2 + (x_5 - x)^2}{5}}.$$

You can also break standard deviation down like this:

1. Work out the Mean (the simple average of the numbers)
2. Then for each number: subtract the Mean and square the result
3. Then work out the mean of those squared differences.
4. Take the square root of that and we are done!

What you need to do for this lab:

- Doubles will be better to use than integers.
- You will need to create a method to calculate the mean and a method to calculate the standard deviation.
- Use the Math.sqrt method to use squareroot.

CSCI 206 Lab	Date: 19 Nov 2018
Lab11	Due: 30 Nov 2018
Please submit your lab in your lecture section on Moodle.	

Sample output:

```
Please enter a number: 100
Please enter a number: 90
Please enter a number: 80
Please enter a number: 70
Please enter a number: 60

You entered: 100.0, 90.0, 80.0, 70.0, 60.0
The average of these numbers is: 80.0
The standard deviation of these numbers is: 14.142135623730951
```

```
Please enter a number: 59.9
Please enter a number: 61.1
Please enter a number: 48.7
Please enter a number: 55.5
Please enter a number: 57.3

You entered: 59.9, 61.1, 48.7, 55.5, 57.3
The average of these numbers is: 56.5
The standard deviation of these numbers is: 4.363484845854285
```