

## Problem Set 1 Exercise #11: Root of Linear Equation

**Reference:** Lecture 2 notes

**Learning objective:** Writing methods

**Estimated completion time:** 20 minutes

### Problem statement:

In algebra, we have studied that second degree linear equations always have two roots.

Write a program **PS1\_Ex11\_Root.java** that reads three coefficients  $a$ ,  $b$ ,  $c$  representing the equation  $ax^2 + bx + c = 0$ , prints out the bigger one between its two roots. You may assume that both roots are real numbers in all the test cases.

Your program should define a method **getRoot()** that takes three coefficients and returns the bigger root.

Correct your output of real number to two decimal places.

### Sample run #1:

```
Enter coefficients (a b c): 1 -8 15
Bigger root is 5.00
```

### Sample run #2:

```
Enter coefficients (a b c): 2 7 3
Bigger root is -0.50
```