Using Arithmetic Operations and Mathematical Functions

java.lang.Object
  Quadratic

public class **Quadratic**
extends java.lang.Object

The Quadratic Class calculates the roots of a quatratic equation in the form $ax^2 + bx + c = 0$.

Constructor Summary

Quadratic ()	Create a new quadratic with default coefficients.
Quadratic (int m, int n, int o)	Create a new quadratic with coefficients m, n and o.

Method Summary

boolean	**discriminant** () Boolean method that tests the quadratic for real solutions. Return true if $b^2 - 4ac >= 0$
double	**root1** () Returns the first solution. Return $\frac{-b+\sqrt{b^2-4ac}}{2a}$
double	**root2** () Returns the second solution Return $\frac{-b-\sqrt{b^2-4ac}}{2a}$

- Write the quadratic class. Include in the tester a quadratic object with 2 real solutions and one with no real solutions.
- Use my values below for your first object, and you construct the other two objects.
- If the Boolean method (described above) detects non-real solutions, be sure to return something
- like "`Equation 1 has No Real Solutions`" instead calling the methods root1 and root2.

Start off with this header:

```
import java.util.Scanner;
/**
 * The Quadratic Class calculates the roots of a quatratic equation
 * in the form  ax^2 + bx + c = 0.

 */Use this data for your first object     a = 1;          b = -10;        c= -24;

public class Quadratic
{
```