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COMPASS
Date:

⇒ Develop a Java Program that prints all real solutions to the quadratic equation $ax^2 + bx + c = 0$. Read in a, b, c and use the quadratic formula. If the discriminant $b^2 - 4ac$ is negative, display a message stating that there are no real solutions.

```
import java.util.*;
```

```
class Quad  
{
```

```
{ public static void main (String [] args)
```

```
{ int a, b, c, count;
```

```
double D;
```

```
Scanner sc = new Scanner (System.in);
```

```
System.out.println ("Enter the values of a, b, c");
```

```
a = sc.nextInt();
```

```
b = sc.nextInt();
```

```
c = sc.nextInt();
```

```
D = (b*b) - (4*a*c);
```

```
if (D == 0)
```

```
{
```

```
System.out.println ("Roots are real and equal");
```

```
count = 1;
```

```
}
```

```
else if (D > 0)
```

```
{
```

```
System.out.println ("Roots are real and  
unequal");
```

```
count = 1;
```

```
}
```



```
else if (D < 0)
{
```

```
    System.out.println("Roots are imaginary");
}
```

```
if (count == 1)
{
```

```
    double r1 = ((-b + Math.sqrt(D)) / (2 * a));
```

```
    double r2 = ((-b - Math.sqrt(D)) / (2 * a));
```

```
    System.out.println("Roots are : " + r1 + " " + r2);
}
```

```
}
```