

```
import java.util.Scanner;
class Quad{
public static void main(String args[])
{
Scanner sc=new Scanner(System.in);
System.out.println("enter coef of x square");
double a=sc.nextDouble();
System.out.println("enter coef of x");
double b=sc.nextDouble();
System.out.println("Enter the constant");
double c=sc.nextDouble();
double d=(b*b)-4*a*c;
double root1,root2;
if(d>0)
{
root1=(-b+Math.sqrt(d))/(2*a);
root2=(-b-Math.sqrt(d))/(2*a);
System.out.println("root1 for d>0 is"+" "+root1);
System.out.println("root2 for d>0 is"+" "+root2);
}
else if(d==0)
{
root1=root2=(-b/(2*a));
System.out.println("for d=0 root1 and root2 are"+" "+root1);
}
else{
double real=(-b/(2*a));
double img=Math.sqrt(-d)/(2*a);
System.out.println("roots for d<0 are r1="+real+"+i"+img+" |r2="+real+"-i"+img);
}
System.out.println("Neha Sajjanar,1BM23CS209");
}
}
```

```
C:\Users\nehas>javac Quad.java
```

```
C:\Users\nehas>java Quad
```

```
enter coef of x square
```

```
5
```

```
enter coef of x
```

```
4
```

```
Enter the constant
```

```
3
```

```
roots for d<0 are r1=-0.4+i0.6633249580710799 r2=-0.4-i0.6633249580710799
```

```
Neha Sajjanar,1BM23CS209
```

```
C:\Users\nehas>javac Quad.java
```

```
C:\Users\nehas>java Quad
```

```
enter coef of x square
```

```
2
```

```
enter coef of x
```

```
4
```

```
Enter the constant
```

```
2
```

```
for d=0 root1 and root2 are -1.0
```

```
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```

```
C:\Users\nehas>javac Quad.java
```

```
C:\Users\nehas>java Quad
```

```
enter coef of x square
```

```
2
```

```
enter coef of x
```

```
8
```

```
Enter the constant
```

```
4
```

```
root1 for d>0 is -0.5857864376269049
```

```
root2 for d>0 is -3.414213562373095
```

```
Neha Sajjanar,1BM23CS209
```

```
C:\Users\nehas>|
```