Practical 1(c)

CODE

```
import java.util.*;

class quad
{
 public static void main(String args[])
{
 Scanner sc = new Scanner(System.in);
 System.out.println("a=");
 int a=sc.nextInt();
 System.out.println("b=");
 int b=sc.nextInt();
 System.out.println("c=");
 int c=sc.nextInt();
 double D=(Math.pow(b,2)-4*a*c);

 if(D>=0)
 {
 double ans1= (-b +Math.sqrt(D))/(2*a);
 double ans2= (-b -Math.sqrt(D))/(2*a);
 System.out.println("THE ANSWERS ARE: \n"+"ANS 1: "+ans1+" ANS 2: "+ans2);
}
else
{
 double c1= Math.sqrt(-D)/(2*a);
 double c2 = (float)(-b)/(float)((2*a));
 System.out.println("COMPLEX ANSWERS FOUND \n THEY ARE : " + c2 + "+" + "i" + c1
+";\n" + c2 + "-" + "i" + c1);
}
}
}
```

OUTPUT

1)real roots

```
a=
1
b=
-5
c=
6
THE ANSWERS ARE:
ANS 1: 3.0 ANS 2: 2.0
```

2)complex roots

```
a=
```

1
b=
1
c=
1
COMPLEX ANSWERS FOUND
 THEY ARE : -0.5+i0.8660254037844386;
-0.5-i0.8660254037844386