**WEEK 3**

**Q7**

import java.util.Scanner;

class roots{

public static void main(String [] args){

Scanner input = new Scanner(System.in);

double a,b,c,r;

System.out.println("Input a: ");

a = input.nextDouble();

System.out.println("Input b: ");

b = input.nextDouble();

System.out.println("Input c: ");

c = input.nextDouble();

r=b\*b-4.0\*a\*c;

double x1,x2;

if(r>0.0)

{ x1 = -b + Math.sqrt(r) / (2 \* a);

x2 = -b - Math.sqrt(r) / (2 \* a);

System.out.println("roots are : "+x1+" & "+x2);

}

else if(r==0.0)

{ x1 = x2=-b / (2 \* a);

System.out.println("roots are equal");

}

else if(r<0.0){ System.out.println("it has no real roots");}

}

**OUTPUT**

