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**Source Code:**

/\*

\* My name is Rahamim Rami Saban, this is Program 1

\* This program will output my name. It will also

\* compute a formula (Y) with given X's going up by

\* increments of 0.5 from -3.0 to +3.0. After computing

\* the values it will format an organized output

\* displaying the values of X and Y for each given computation.

\* It will also state whether Y is positive, zero, or negetive.

\* If positive it will count how many positive results there

\* are. The same applies to negetive, as well as zero.

\* At the end of the last computation the program will state

\* that it is finished.

\*/

public class ProfessorFormula {

public static void main (String[] args) {

System.out.println("My name is Rami Saban, and this is Program 1's first output.");

double x,y;

int countingZ,countingP,countingN;

countingZ=0;

countingP=0;

countingN=0;

for(x=-3.0;x<=3.0;x=x+0.5){

y=((4\*x\*x\*x)+(8\*x\*x)-(31\*x)-35)/(Math.sqrt((3\*x\*x)+1)+(2\*Math.abs(x-1.5)));

System.out.printf("X is %8.4f Y is %8.4f",x,y);

if(y==0){

countingZ++;

System.out.print(" Y IS ZERO "+countingZ);}

if(y>0){

countingP++;

System.out.print(" Y IS POSITIVE "+countingP);}

if(y<0){

countingN++;

System.out.print(" Y IS NEGATIVE "+countingN);}

System.out.println();}

System.out.print("This program is now complete");}

}

**Output:**

My name is Rami Saban, and this is Program 1's first output.

X is -3.0000 Y is 1.5394 Y IS POSITIVE 1

X is -2.5000 Y is 2.4108 Y IS POSITIVE 2

X is -2.0000 Y is 2.5458 Y IS POSITIVE 3

X is -1.5000 Y is 1.8215 Y IS POSITIVE 4

X is -1.0000 Y is 0.0000 Y IS ZERO 1

X is -0.5000 Y is -3.3816 Y IS NEGATIVE 1

X is 0.0000 Y is -8.7500 Y IS NEGATIVE 2

X is 0.5000 Y is -14.4453 Y IS NEGATIVE 3

X is 1.0000 Y is -18.0000 Y IS NEGATIVE 4

X is 1.5000 Y is -17.9605 Y IS NEGATIVE 5

X is 2.0000 Y is -7.1653 Y IS NEGATIVE 6

X is 2.5000 Y is 0.0000 Y IS ZERO 2

X is 3.0000 Y is 6.2715 Y IS POSITIVE 5

This program is now complete>