

## problem 2



Write C code to compute the real roots of the equation:  $ax^2+bx+c=0$ . The program will prompt the user to input the values of a, b, and c. It then computes the real roots of the equation based on the following rules:

- if a and b are zero=> no solution
- if a is zero=>one root ( $-c/b$ )
- if  $b^2-4ac$  is negative=>no roots
- Otherwise=> two roots

The roots can be computed using the following formula:

$$x_1 = \frac{-b + (b^2 - 4ac)^{1/2}}{2a}$$

$$x_2 = \frac{-b - (b^2 - 4ac)^{1/2}}{2a}$$

Used library `<math.h>`



# Expected output :

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.17134.228]
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E:\IMT C pool\if conditions\p2>gcc main.c

E:\IMT C pool\if conditions\p2>a
enter the value a:10
enter the value b:5
enter the value c:3
no roots
E:\IMT C pool\if conditions\p2>
```

