



C- Pool

problem 8

Real Roots of equation

## Example description

**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:**

$$x1=-b+(b^2-4ac)^{1/2}/2a$$

$$x2=-b-(b^2-4ac)^{1/2}/2a$$

**Used library < math.h>**

## Expected Output

```
enter the value a:5  
enter the value b:2  
enter the value c:3  
no roots
```