



Begin

Input a, b, c

Input Delta = D

$a*x*x + b*x + c = 0$

$D = b*b - 4*a*c$

$i = \text{mathsqr}(-1)$

If $a = 0$

The equation has format: $b*x + c = 0$

Then The solution of the equation is: $x = (-b) / (2*a)$

Display x

Else $a \neq 0$

The equation has format: $a*x*x + b*x + c = 0$

If $D > 0$ The equation has two distinct solutions:

$x1 = (-b + \text{Mathsqr}(D)) / (2 * a)$

$x2 = (-b - \text{Mathsqr}(D)) / (2 * a)$

Else $D \leq 0$

If $D = 0$ The equation has a real solution:

$x1 = x2 = (-b) / (2*a)$

Else The equation has two distinct complex solutions:

$x1 = (-b) / (2*a) + (i*\text{mathsqr}(D)) / (2*a)$

$x2 = (-b) / (2*a) - (i*\text{mathsqr}(D)) / (2*a)$

End If

End If

End If

Display x1, x2

End