

# Coefficients of the Quadratic Equation

## 8 Kuy

In this Kata you are expected to find the coefficients of quadratic equation of the given two roots (  $x_1$  and  $x_2$  ).

Equation will be the form of  $ax^2 + bx + c = 0$

Return type is an Array containing coefficients of the equations in the order (a, b, c) .

Since there are infinitely many solutions to this problem, we fix  $a = 1$  .

Remember, the roots can be written like  $(x-x_1) * (x-x_2) = 0$

### Example 1

$$(x-x_1) * (x-x_2) = 0$$

This means  $(x-1) * (x-2) = 0$  ; when we do the multiplication this becomes  $x^2 - 3x + 2 = 0$

### Example 2

$$\text{quadratic}(0,1) = (1, -1, 0)$$

This means  $(x-0) * (x-1) = 0$  ; when we do the multiplication this becomes  $x^2 - x + 0 = 0$

## Notes

- Inputs will be integers.
- When  $x_1 == x_2$  , this means the root has the multiplicity of two