

* Solve the equation $x^2 - x - 6 = 0$
(expression $x^2 - x - 6$)

★ equation $x^2 - x - 6 = 0$

$$4 \times 0 = 0$$

$$0 \times 3 = 0$$

$$\underbrace{\quad \times \quad \times \quad \quad}_{\quad} = 0$$

at least one factor must be 0

factor $x^2 - 1x - 6 = 0$ complex

$$(x-3)(x+2) = 0$$

worth 0 OR worth 0

$$(x-3) = 0$$

$$x = 3$$

$$\text{OR } (x+2) = 0$$

$$x = -2$$

2 simple equations

$$\begin{aligned} 3^2 - 3 - 6 &= 0 \\ 9 - 3 - 6 &= 0 \\ 6 - 6 &= 0 \\ 0 &= 0 \end{aligned}$$

$$\begin{aligned} (-2)^2 - (-2) - 6 &= 0 \\ 4 + 2 - 6 &= 0 \\ 6 - 6 &= 0 \\ 0 &= 0 \checkmark \end{aligned}$$