

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The [▶ Quadratic Formula](#) says r_1 and r_2 are [▶ the roots](#) of:

$$ax^2 + bx + c = 0$$

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The **Quadratic Formula** says r_1 and r_2 are **the roots** of:

$$ax^2 + bx + c = 0$$
$$r_{1,2} = \frac{-(b) \pm \sqrt{(b)^2 - 4ac}}{2a}$$

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The **Quadratic Formula** says r_1 and r_2 are **the roots** of:

$$ax^2 + bx + c = 0$$
$$r_{1,2} = \frac{-(b) \pm \sqrt{(b)^2 - 4ac}}{2a}$$

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The **Quadratic Formula** says r_1 and r_2 are **the roots** of:

$$ax^2 + bx + c = 0$$

$$r_{1,2} = \frac{-(b) \pm \sqrt{(b)^2 - 4ac}}{2a}$$

$$r_{1,2} = \frac{-(1) \pm \sqrt{(1)^2 - 4 \cdot 1 \cdot -2}}{2 \cdot 1}$$

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The **Quadratic Formula** says r_1 and r_2 are **the roots** of:

$$ax^2 + bx + c = 0$$

$$r_{1,2} = \frac{-(b) \pm \sqrt{(b)^2 - 4ac}}{2a}$$

$$r_{1,2} = \frac{-(1) \pm \sqrt{(1)^2 - 4 \cdot 1 \cdot -2}}{2 \cdot 1}$$

$$= \frac{-1 \pm \sqrt{1 + 8}}{2}$$

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The **Quadratic Formula** says r_1 and r_2 are **the roots** of:

$$\begin{aligned} & ax^2 + bx + c = 0 \\ r_{1,2} &= \frac{-(b) \pm \sqrt{(b)^2 - 4ac}}{2a} \\ r_{1,2} &= \frac{-(1) \pm \sqrt{(1)^2 - 4 \cdot 1 \cdot -2}}{2 \cdot 1} \\ &= \frac{-1 \pm \sqrt{1 + 8}}{2} \\ &= \frac{-1 \pm \sqrt{9}}{2} \end{aligned}$$

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The **Quadratic Formula** says r_1 and r_2 are **the roots** of:

$$ax^2 + bx + c = 0$$

$$r_{1,2} = \frac{-(b) \pm \sqrt{(b)^2 - 4ac}}{2a}$$

$$r_{1,2} = \frac{-(1) \pm \sqrt{(1)^2 - 4 \cdot 1 \cdot -2}}{2 \cdot 1}$$

$$= \frac{-1 \pm \sqrt{1 + 8}}{2}$$

$$= \frac{-1 \pm \sqrt{9}}{2}$$

$$= \frac{-1 \pm 3}{2}$$

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The **Quadratic Formula** says r_1 and r_2 are **the roots** of:

$$\begin{aligned} & ax^2 + bx + c = 0 \\ r_{1,2} &= \frac{-(b) \pm \sqrt{(b)^2 - 4ac}}{2a} \\ r_{1,2} &= \frac{-(1) \pm \sqrt{(1)^2 - 4 \cdot 1 \cdot -2}}{2 \cdot 1} \\ &= \frac{-1 \pm \sqrt{1 + 8}}{2} \\ &= \frac{-1 \pm \sqrt{9}}{2} \\ &= \frac{-1 \pm 3}{2} \\ &= \frac{2}{2} \text{ and } \frac{-4}{2} \end{aligned}$$

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The **Quadratic Formula** says r_1 and r_2 are **the roots** of:

$$\begin{aligned} & ax^2 + bx + c = 0 \\ r_{1,2} &= \frac{-(b) \pm \sqrt{(b)^2 - 4ac}}{2a} \\ r_{1,2} &= \frac{-(1) \pm \sqrt{(1)^2 - 4 \cdot 1 \cdot -2}}{2 \cdot 1} \\ &= \frac{-1 \pm \sqrt{1 + 8}}{2} \\ &= \frac{-1 \pm \sqrt{9}}{2} \\ &= \frac{-1 \pm 3}{2} \\ &= \frac{2}{2} \text{ and } \frac{-4}{2} \\ &= 1 \text{ and } -2 \end{aligned}$$

Solving the quadratic equation: $x^2 + x - 2 = 0$:

Recall: The **Quadratic Formula** says r_1 and r_2 are **the roots** of:

$$\begin{aligned} & ax^2 + bx + c = 0 \\ r_{1,2} &= \frac{-(b) \pm \sqrt{(b)^2 - 4ac}}{2a} \\ r_{1,2} &= \frac{-(1) \pm \sqrt{(1)^2 - 4 \cdot 1 \cdot -2}}{2 \cdot 1} \\ &= \frac{-1 \pm \sqrt{1 + 8}}{2} \\ &= \frac{-1 \pm \sqrt{9}}{2} \\ &= \frac{-1 \pm 3}{2} \\ &= \frac{2}{2} \text{ and } \frac{-4}{2} \\ &= 1 \text{ and } -2 \end{aligned}$$

The solutions to $x^2 + x - 2 = 0$ are: $x = r_{1,2} = 1, -2$