

Equations

1^{er} degré

$$ax + b = 0 \iff x = -\frac{b}{a}$$

Exemple

$$2(x-2) = 1-x - (2-x)$$

$$\cancel{2x} - \cancel{2} = 1 - \cancel{x} - \cancel{2} + \cancel{x}$$

$$2x - 2 = 0 \longrightarrow 2x = 2$$

$$2x = 2 \iff x = \frac{2}{2}$$

$$x = -\frac{-2}{2} = \frac{2}{2}$$

$$S' = \left\{ \frac{2}{2} \right\}$$

2^{ème} degré

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

$$\Leftrightarrow X = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

2.5.1 / 2.5.2 → Mercredi 17 janvier



Exercices 1.4.22 / 1.4.25 / 1.4.28 /
1.4.24

→ Mardi 16 janvier

$$3x - 2 = 1 - (x - (1 - x))$$

$$3x - 2 = 1 - (x - 1 + x)$$

$$3x - 2 = 1 - x + 1 - x$$

$$3x - 2 = 1 + 1 - x - x = 2 - 2x$$

$$3x - 2 = 2 - 2x$$

$$5x - 4 = 0$$

$$x = \frac{4}{5} = 0,8$$

$$5x = 4 \quad / \quad x = \frac{4}{5}$$

$$x = -\frac{b}{a}$$
$$2x = -b$$

$$2x + b = 0 \Leftrightarrow x = -\frac{b}{2}$$
$$5x - 4$$

$$b = -4 \quad -b = 4$$

$$2x^2 - 4x - 34 = 0$$

$$x = \frac{4 \pm \sqrt{288}}{4}$$

$$S = \left\{ \frac{4 - \sqrt{288}}{4}, \frac{4 + \sqrt{288}}{4} \right\}$$

$$\frac{4 \pm \sqrt{12 \cdot 12 \cdot 2}}{4}$$

$$\frac{4 \pm \sqrt{12 \cdot 12} \cdot \sqrt{2}}{4}$$

$$= \frac{4 \pm 12\sqrt{2}}{4} = 1 \pm 3\sqrt{2}$$