

Equation du second degré

Rappels
1^{er} spé

$$1) 3x^2 - x - 10 = 0$$

$$\Delta = b^2 - 4ac \quad \text{ici} \quad \begin{array}{l} a = 3 \\ b = -1 \\ c = -10 \end{array}$$

$$\Delta = (-1)^2 - 4 \times 3 \times (-10)$$

$$\Delta = 1 + 120 = 121$$

les solutions possibles sont :

$$x_1 = \frac{-b + \sqrt{\Delta}}{2a} = \frac{-(-1) + \sqrt{121}}{2 \times 3} = 2$$

$$x_2 = \frac{-b - \sqrt{\Delta}}{2a} = \frac{-(-1) - \sqrt{121}}{2 \times 3} = 1,83$$

$$2) 9x^2 - 12x + 4 = 0 \quad \text{ici} \quad \begin{array}{l} a = 9 \\ b = -12 \\ c = 4 \end{array}$$

$$\Delta = b^2 - 4ac$$

$$\Delta = (-12)^2 - 4 \times 9 \times 4$$

$$\Delta = 0$$

les solutions possibles sont :

$$x_1 = \frac{-b + \sqrt{\Delta}}{2a} = \frac{-(-12) + 0}{2 \times 9} = 0,67$$

$$x_2 = \frac{-b - \sqrt{\Delta}}{2a} = x_1$$