

EXERCICE 2.1

Factoriser le polynôme, comme dans l'exemple :

$$\begin{aligned}\mathbf{A}(x) &= (x + 3)^2 - 2 \\ &= (x + 3)^2 - (\sqrt{2})^2 \\ &= (x + 3 + \sqrt{2})(x + 3 - \sqrt{2})\end{aligned}$$

$$\mathbf{B}(x) = (x - 5)^2 - 3$$

$$\mathbf{C}(x) = (x + 5)^2 - 7$$

$$\mathbf{D}(x) = (x - 3)^2 - 16$$

$$\mathbf{E}(x) = (x - 7)^2 - 2$$

$$\mathbf{F}(x) = (2x - 3)^2 - 11$$

$$\mathbf{G}(x) = (3x + 5)^2 - 25$$

$$\mathbf{H}(x) = (5x - 1)^2 - 4$$

EXERCICE 2.2

Ecrire sous forme canonique puis factoriser le polynôme, comme dans l'exemple :

$$\begin{aligned}\mathbf{A}(x) &= x^2 - 6x + 6 \\ &= x^2 - 6x + 9 - 9 + 6 \\ &= (x - 3)^2 - 3 \\ &= (x - 3)^2 - (\sqrt{3})^2 \\ &= (x - 3 + \sqrt{3})(x - 3 - \sqrt{3})\end{aligned}$$

$$\mathbf{B}(x) = x^2 + 8x + 3$$

$$\mathbf{C}(x) = x^2 - 4x - 1$$

$$\mathbf{D}(x) = x^2 - 5x - 1$$

$$\mathbf{E}(x) = x^2 + 3x - 5$$

$$\mathbf{F}(x) = 2x^2 - 12x + 8$$

$$\mathbf{G}(x) = 2x^2 + 7x + 3$$

$$\mathbf{H}(x) = 3x^2 + 15x - 7$$