

## Ex 1

Factoriser les expressions suivantes

$$A = 9 - 4x^2$$

$$B = (2x + 1)^2 - 1$$

$$C = 8 - x^3$$

$$D = 8x^3 - 1$$

$$\begin{aligned} A = 9 - 4x^2 &= (3)^2 - (2x)^2 \\ &= (3 - 2x)(3 + 2x) \end{aligned}$$

$$\begin{aligned} B = (2x + 1)^2 - 1 &= (2x + 1)^2 - (1)^2 \\ &= (2x + 1 - 1) \cdot (2x + 1 + 1) \\ &= (2x) \cdot (2x + 2) \end{aligned}$$

$$\begin{aligned} C = 8 - x^3 &= (2)^3 - (x)^3 \\ &= (2 - x) \cdot (2^2 + 2 \cdot x + x^2) \\ &= (2 - x) \cdot (4 + 2x + x^2) \end{aligned}$$

$$\begin{aligned} D = 8x^3 - 1 &= (2x)^3 - (1)^3 \\ &= (2x - 1) \cdot ((2x)^2 + (1) \cdot (2x) + (1)^2) \\ &= (2x - 1) \cdot (4x^2 + 2x + 1) \end{aligned}$$