

## Activité 2 - 1aA

Voici huit polynômes en  $x$  :

$$A(x) = x^2 + 3x + 2$$

$$B(x) = 3x^2 + 5x + 2$$

$$C(x) = 2x^3 + 6x^2 - x - 3$$

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

$$E(x) = -2x^2 - 11x - 5$$

$$F(x) = -5x^2 - 2x - 7$$

$$G(x) = -2x^3 + 8x^2 + x - 4$$

$$H(x) = 5x^3 + 2x^2 - 10x - 4$$

- a) Calcule les valeurs numériques demandées. Ensuite, vérifie tes résultats à l'aide de la calculatrice.

$$A(x) = x^2 + 3x + 2$$

$$A(0), A(1), A(-1), A(-2), A(2), A\left(\frac{1}{3}\right)$$

$$A(0) = 0^2 + 3 \cdot 0 + 2 = 0 + 3 \cdot 0 + 2 = 0 + 0 + 2 = 2$$

$$A(1) = 1^2 + 3 \cdot 1 + 2 = 1 + 3 \cdot 1 + 2 = 1 + 3 + 2 = 6$$

$$A(-1) = (-1)^2 + 3 \cdot (-1) + 2 = 1 + 3 \cdot (-1) + 2 = 1 - 3 + 2 = 0$$

$$A(-2) = (-2)^2 + 3 \cdot (-2) + 2 = 4 + 3 \cdot (-2) + 2 = 4 - 6 + 2 = 0$$

$$A(2) = 2^2 + 3 \cdot 2 + 2 = 4 + 3 \cdot 2 + 2 = 4 + 6 + 2 = 12$$

$$A\left(\frac{1}{3}\right) = \left(\frac{1}{3}\right)^2 + 3 \cdot \frac{1}{3} + 2 = \frac{1}{9} + 3 \cdot \frac{1}{3} + 2 = \frac{1}{9} + 1 + 2 = \frac{1 + 9 + 18}{9} = \frac{28}{9}$$

## Activité 2 - 1aB

$$B(x) = 3x^2 + 5x + 2$$

$$B(0), B(1), B(-1), B(-4), B(4), B\left(\frac{-1}{5}\right)$$

$$B(0) = 3 \cdot 0^2 + 5 \cdot 0 + 2 = 3 \cdot 0 + 5 \cdot 0 + 2 = 0 + 0 + 2 = 2$$

$$B(1) = 3 \cdot 1^2 + 5 \cdot 1 + 2 = 3 \cdot 1 + 5 \cdot 1 + 2 = 3 + 5 + 2 = 10$$

$$B(-1) = 3 \cdot (-1)^2 + 5 \cdot (-1) + 2 = 3 \cdot 1 + 5 \cdot (-1) + 2 = 3 - 5 + 2 = 0$$

$$B(-4) = 3 \cdot (-4)^2 + 5 \cdot (-4) + 2 = 3 \cdot 16 + 5 \cdot (-4) + 2 = 48 - 20 + 2 = 30$$

$$B(4) = 3 \cdot 4^2 + 5 \cdot 4 + 2 = 3 \cdot 16 + 5 \cdot 4 + 2 = 48 + 20 + 2 = 70$$

$$B\left(\frac{-1}{5}\right) = 3 \cdot \left(\frac{-1}{5}\right)^2 + 5 \cdot \frac{-1}{5} + 2 = 3 \cdot \frac{1}{25} + 5 \cdot \frac{-1}{5} + 2 = \frac{3}{25} - 1 + 2 = \frac{3}{25} + 1 = \frac{28}{25}$$