

# Opérations sur les polynômes

La division de polynômes  
(sans reste)

## ○ La division de polynômes

Étape 1

$$(-11x - 35 + 6x^2) \div (5 + 3x)$$

$$(6x^2 - 11x - 35) \div (3x + 5)$$

1

2

3

4

5

6

7

# La division de polynômes

Étape 2

$$6x^2 - 11x - 35 \quad \Big| \quad 3x + 5$$



Diagram illustrating the layout of polynomial division:

Dividende	Diviseur
	Quotient

The diagram shows a yellow oval containing a table with two columns and two rows. The top row contains 'Dividende' and 'Diviseur'. The bottom row contains 'Quotient'. A horizontal line is drawn under 'Diviseur', and a vertical line is drawn to the left of 'Diviseur' and 'Quotient', forming a partial division symbol.

1

2

3

4

5

6

7

# La division de polynômes

Étape 7

$$\begin{array}{r} (6x^2 - 11x - 35) \quad \Big| \quad 3x + 5 \\ \underline{+(6x^2 + 10x)} \phantom{- 35} \\ -21x - 35 \end{array}$$

$$\frac{6x^2}{3x} = 2x$$

$$2x \cdot (3x + 5) = 6x^2 + 10x$$

1

2

3

4

5

6

7

# La division de polynômes

Étape 7

$$\begin{array}{r} (6x^2 - 11x - 35) \quad \overline{) \quad 3x + 5} \\ + \overline{-(6x^2 + 10x)} \\ \hline (-21x - 35) \\ + \overline{+(-21x - 35)} \\ \hline 0 \end{array}$$

$$\frac{6x^2}{3x} = 2x \quad \frac{-21x}{3x} = -7$$

$$2x \cdot (3x + 5) = 6x^2 + 10x$$

$$-7 \cdot (3x + 5) = -21x - 35$$

Vérification

$$\begin{aligned} & (2x - 7) \cdot (3x + 5) \\ & 6x^2 + 10x - 21x - 35 \\ & 6x^2 - 11x - 35 \end{aligned}$$

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