

Division

Avec reste

$$\begin{array}{r|l} 73 & 16 \\ \hline 64 & 4 \\ \hline 9 & \end{array}$$

$$73 = 4 \cdot 16 + 9$$

$$\begin{array}{r|l} 91 & 13 \\ \hline 91 & 7 \\ \hline 0 & \end{array}$$

$$91 = 7 \cdot 13 + 0$$

$$\begin{array}{r|l} 177 & 45 \\ \hline 135 & 3 \\ \hline 42 & \end{array}$$

$$177 = 3 \cdot 45 + 42$$

$$91 = 7 \cdot 13$$

$$8 = 2 \cdot 2 \cdot 2$$

$$10 = 5 \cdot 2$$

$$15 = 3 \cdot 5$$

$$X^3 - 2X^2 + 3X - 1$$

$$X^2 - X + 2$$

$$X^3 - X^2 + 2X$$

$$X - 1$$

$$0X^3 - X^2 + X - 1$$

$$-X^2 + X - 2$$

1

Égalité fondamentale

$$X^3 - 2X^2 + 3X - 1 = (X - 1)(X^2 - X + 2) + 1$$

2.3.1

$$\begin{array}{r|l} X^3 & X^4 \\ \hline & 0 \\ \hline X^3 & \end{array}$$

$$X^3 = 0 \cdot X^4 + X^3$$

$$\begin{array}{r|l} 1 & 8 \\ \hline & 0 \\ \hline 1 & \end{array}$$

$$1 = 0 \cdot 8 + 1$$

$$\begin{array}{r|l}
 \textcircled{x^3} + 0x^2 & -x \\
 \hline
 \boxed{x^3 - x^2} & \\
 \hline
 \textcircled{x^2} & -x \\
 x^2 & -x \\
 \hline
 & 0
 \end{array}$$

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

$$0x^2 - (-x^2) = x^2$$

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

$$= x(x+1)(x-1)$$