

Exercice 4

$$\begin{aligned} 39^2 &= (40 - 1)^2 = 40^2 - 2 \times 40 \times 1 + 1^2 \\ &= 1600 - 80 + 1 = \boxed{1521} \end{aligned}$$

$$\begin{aligned} 99^2 &= (100 - 1)^2 = 100^2 - 2 \times 100 \times 1 + 1^2 \\ &= 10000 - 200 + 1 \\ &= \boxed{9801} \end{aligned}$$

$$\begin{aligned} 29^2 &= (30 - 1)^2 = 30^2 - 2 \times 30 \times 1 + 1^2 \\ &= 900 - 60 + 1 = \boxed{841} \end{aligned}$$

$$\begin{aligned} 195^2 &= (200 - 5)^2 = 200^2 - 2 \times 200 \times 5 + 5^2 \\ &= 40000 - 2000 + 25 \\ &= \boxed{38025} \end{aligned}$$

Exercice 5

$$\begin{aligned} \text{on a } A &= (2x - 6)(4 - x) + 3x^2 \\ &= 8x - 2x^2 - 24 + 6x + 3x^2 \\ &= 1x^2 + 14x - 24 \end{aligned}$$

$$\begin{aligned} \text{et } B &= (x + 5)^2 - (1 - 4x) \\ &= x^2 + 10x + 25 - 1 + 4x \\ &= x^2 + 14x + 24 \end{aligned}$$

↳ à cause du -24 et du $+24$,
on peut écrire $A \neq B$.