

EXERCICE 3 P. 42 — CORRECTION

1. a.

$$\begin{aligned} & 4(x - 3)^2 + 5 \\ &= 4(x^2 - 2 \times 3x + 3^2) + 5 \\ &= 4(x^2 - 6x + 9) + 5 \\ &= 4x^2 - 24x + 36 + 5 \\ &= 4x^2 - 24x + 41 \end{aligned}$$

b.

$$\begin{aligned} & 2 - (x - \sqrt{5})^2 \\ &= 2 - (x^2 - 2\sqrt{5}x + 5) \\ &= 2 - x^2 + 2\sqrt{5}x - 5 \\ &= -x^2 + 2\sqrt{5}x - 3 \end{aligned}$$

c.

$$\begin{aligned} & 4(x + 5) \left(x - \frac{3}{4}\right) \\ &= 4 \left(x^2 - \frac{3}{4}x + 5x - \frac{15}{4}\right) \\ &= 4 \left(x^2 + \frac{17}{4}x - \frac{15}{4}\right) \\ &= 4x^2 + 17x - 15 \end{aligned}$$

2. *Fait en classe.*