

# Brevet Blanc 2

Mai 2026

## Automatismes

Question 1

Il se termine à 22<sup>h</sup> 45

Question 2

$$\begin{aligned} 35 \times 42 &= 5 \times 7 \times 6 \times 7 \\ &= \underline{2 \times 3 \times 5 \times 7 \times 7} \end{aligned}$$

Question 3

$$\begin{aligned} G &= (3x - 1)(4x + 2) \\ &= 3x \times 4x + 3x \times 2 - 4x \times 1 - 1 \times 2 \\ &= 12x^2 + 6x - 4x - 2 \\ &= \underline{12x^2 + 2x - 2} \end{aligned}$$

Question 4

$$\frac{24}{30} = \frac{4}{5} = \frac{4 \times 20}{5 \times 20} = \frac{80}{100}$$

$$\Rightarrow \underline{80 \%}$$

Question 5

$$\frac{1320}{420} = \frac{132}{42} = \frac{2 \times 6 \times 11}{6 \times 7}$$

$$\frac{1420}{420} = \underline{\frac{22}{7}}$$

Question 6

$$\begin{aligned} \text{a) } f(-10) &= 3 \times (-10)^2 - 5 \\ &= 3 \times 100 - 5 \\ &= \underline{295} \end{aligned}$$

b)

$$g(x) = 7x - 5 = 30$$

$$7x = 30 + 5$$

$$7x = 35$$

$$x = \frac{35}{7} = \underline{5}$$

### Question 7

$$\begin{aligned}\frac{7}{15} &= \frac{2}{3} = \frac{7}{15} \times \frac{3}{2} \\ &= \frac{7 \times 3}{3 \times 5 \times 2} \\ &= \frac{7}{10}\end{aligned}$$

### Question 8

$$\begin{array}{r} \textcircled{3} \quad - \quad \underline{4} \\ \textcircled{5} \quad \underline{\underline{90}} \end{array}$$

### Question 9

$$V = 6 \times 5 \times 3$$

$$\underline{V = 90 \text{ cm}^3}$$