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## **MATEMATICA**

SEMANA 26

DOM: ☐ SEG: ☐ TER: ☐ QUA: ☐ QUI: ☐

$$\textcircled{1} PA \cdot PB = PC \cdot PD \sim 8 \cdot 8 = x \left( x + \frac{1}{x} \right)$$

$$64 = 2x$$

$$x = \frac{64}{2} = 32$$

Resposta: (E)

$$x = \sqrt{32} + \sqrt{32} = \boxed{4\sqrt{2}}$$

$$\textcircled{2} \begin{array}{l} PA = 3PC \\ \frac{PB}{PA} = \frac{PA}{PC} \end{array} \quad \left. \begin{array}{l} PA^2 = PB \cdot PC \\ (3PC)^2 = PB \cdot PC \\ 9PC^2 = PB \cdot PC \\ |9PC = PB| \end{array} \right\}$$

Resposta: (B)

$$\textcircled{3} \begin{array}{l} x^2 + 5x + (2\sqrt{5})^2 = (2\sqrt{5})^2 + 36 \\ x^2 + 5x - 36 = 0 \rightarrow \Delta = 5^2 - 4(-36) \cdot 1 \\ x = \frac{-5 \pm \sqrt{13}}{2} \quad \Delta = 25 + 144 = 169 \end{array}$$

$$\boxed{x = \frac{8}{2} = 4}$$

$$x = \frac{-5 - 13}{2} \rightarrow \text{Negative}$$

Resposta: (E)

$$\textcircled{4} \begin{array}{l} AE \cdot EB = 3 \\ CE = ED \\ CE \cdot ED = AE \cdot EB = 3 \end{array} \quad \left. \begin{array}{l} CE^2 = 3 \rightarrow CD = CE + CB \\ CE = \sqrt{3} \quad CD = 2 \cdot CE \\ |CD = 2\sqrt{3}| \end{array} \right\}$$

Resposta: (B)

$$\textcircled{5} \begin{array}{l} 4 \cdot (4 + 2B) = 18 \cdot 8 \\ 16 + 8B = 144 \\ 8B = 144 - 16 \\ 8B = 128 \\ B = \frac{128}{8} \\ B = 16 \end{array}$$

AC

$$18 + 16 + 20 = \boxed{54}$$

Resposta: (E)