

AVALIAÇÃO DISCURSIVA DE MATEMÁTICA • ENSINO FUNDAMENTAL • 9º ANO

QUESTÃO 1.

$$\begin{aligned} & \frac{\sqrt{24}}{2} + \sqrt{54} + \sqrt{196} - \sqrt{96} = \\ & = \frac{\cancel{2}\sqrt{6}}{\cancel{2}1} + 3\sqrt{6} + 14 - 4\sqrt{6} = \\ & = \sqrt{6} + 3\sqrt{6} + 14 - 4\sqrt{6} = \\ & = 14 \end{aligned}$$

R: 14.

QUESTÃO 2

$$1) y = \frac{26}{3}x$$

$$2) y = \frac{26}{\cancel{3}1} \cdot \cancel{6}^2 = 52$$

R: Lei: $y = \frac{26}{3}x$; 52 laranjas.

QUESTÃO 3

$$A_{ABC} = \frac{BC \cdot AH}{2}$$

$$A_{ABC} = \frac{\sqrt[4]{8} \cdot \sqrt[4]{8}}{2}$$

$$A_{ABC} = \frac{\sqrt[4]{64}}{2}$$

$$A_{ABC} = \frac{\sqrt[2]{2^6}}{2}$$

$$A_{ABC} = \frac{\cancel{2} \cdot \sqrt{2}}{\cancel{2}}$$

$$A_{ABC} = \sqrt{2}$$

R: $\sqrt{2}$.

QUESTÃO 4

$$f(6) = -2 \cdot 6^2 - 3 \cdot 6 + 7$$

$$f(6) = -72 - 18 + 7$$

$$f(6) = -83$$

$$f(-4) = -2 \cdot (-4)^2 - 3 \cdot (-4) + 7$$

$$f(-4) = -32 + 12 + 7$$

$$f(-4) = -13$$

$$\begin{aligned} & f(6) - f(-4) = \\ & = -83 - (-13) = -70 \end{aligned}$$

R: -70.

QUESTÃO 5

$$\begin{aligned} & \underbrace{(\sqrt{3} + \sqrt{2})^2}_{\text{PROD. NOT}} - 2 \cdot (\sqrt{2^2} + \sqrt{6}) = \\ & = 3 + 2\sqrt{6} + 2 - 2 \cdot \frac{1}{2} - 2\sqrt{6} = \\ & = 4 \\ & R: 4 \end{aligned}$$

QUESTÃO 6

$$f(27) = 1590 + 35 \cdot 27$$

$$f(27) = 2445$$

$$R: 2445.$$

QUESTÃO 7

$$\begin{aligned} \text{ÁREA DA ESTUFA} & : 25 \cdot 16\sqrt{2} = \\ & = 400\sqrt{2} \text{ m}^2 \end{aligned}$$

$$\text{PLANTAS POR M}^2 : \frac{2000^5}{400\sqrt{2}}$$

$$= \frac{5}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{5\sqrt{2}}{2}$$

$$\Rightarrow a = 5, b = 2.$$

$$a + b = 5 + 2 = 7.$$

$$R: 7$$

QUESTÃO 8

$$1) y = 7 + (x - 1) \cdot 4,5$$

$$\Rightarrow y = 4,5x + 2,5$$

$$2) 61 = 4,5x + 2,5$$

$$\Rightarrow 58,5 = 4,5x$$

$$\Rightarrow x = \frac{58,5}{4,5} \cdot \frac{2}{2} = \frac{117}{9} = 13$$

$$R: \text{Lei: } y = 4,5x + 2,5; 13$$

