

CORREÇÃO IFBA 2012

Q11.

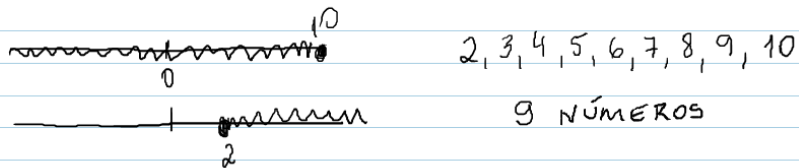
$$1 + \frac{1}{1 + \frac{1}{2}} \Rightarrow 1 + \frac{1}{2 + \frac{1}{2}} \Rightarrow 1 + \frac{1}{\frac{3}{2}} \Rightarrow 1 + 1 \cdot \frac{2}{3} = 1 + \frac{2}{3} = \frac{3+2}{3} = \frac{5}{3}$$

Resposta: B

Q12.

$$\frac{5x}{2} \leq \frac{7x+5}{3} \Rightarrow 15x \leq 14x + 10 \Rightarrow 15x - 14x \leq 10 \Rightarrow x \leq 10$$

$$\frac{-x+6}{4} \leq 1 \Rightarrow -x+6 \leq 4 \Rightarrow -x \leq 4-6 \Rightarrow -x \leq -2 \Rightarrow x \geq 2$$



Resposta: C

Q13.

$$\sqrt{\left(\frac{x^2+y^2}{2xy}\right)^2 - 1} = \sqrt{\left(\frac{x^2}{2xy}\right)^2 + 2 \cdot \frac{x^2}{2xy} \cdot \frac{y^2}{2xy} + \left(\frac{y^2}{2xy}\right)^2 - 1}$$

$$\sqrt{\frac{x^4}{4x^2y^2} + \frac{2x^2y^2}{4x^2y^2} + \frac{y^4}{4x^2y^2} - 1} \quad \text{MMC} \quad \sqrt{\frac{x^4 + 2x^2y^2 + y^4 - 4x^2y^2}{4x^2y^2}}$$

$$\sqrt{\frac{x^4 - 2x^2y^2 + y^4}{4x^2y^2}} = \sqrt{\frac{(x^2 - y^2)^2}{4x^2y^2}} = \frac{x^2 - y^2}{2xy}$$

Resposta: B

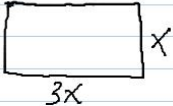
Q14.

$$Y_v = \frac{-\Delta}{4a} \Rightarrow \frac{-(b^2 - 4ac)}{4a} \Rightarrow \frac{-(18^2 - 4 \cdot (-3) \cdot 0)}{4 \cdot (-3)}$$

$$Y_v = \frac{-(18^2)}{-12} = \frac{-324}{-12} = 27$$

Resposta: C

Q15.



$$x + x + 3x + 3x = 40$$

$$8x = 40$$

$$x = 5$$

$$3x = 15$$

$$A_{\square} = B \times h$$

$$A_{\square} = 15 \times 5 = 75$$

Resposta: E

Q16.

$$a^3 - 3ax^2y^2$$

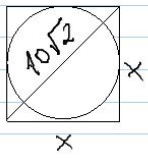
$$10^3 - 3 \cdot 10^2 \cdot 2^2 \cdot 1^2$$

$$1000 - 3 \cdot 100 \cdot 4 \cdot 1$$

$$1000 - 1200 = -200$$

Resposta: B

Q17.



$$(10\sqrt{2})^2 = x^2 + x^2$$

$$D = 10 \Rightarrow R = 5$$

$$(10\sqrt{2})^2 = 2x^2$$

$$200 = 2x^2$$

$$100 = x^2$$

$$x = 10$$

$$C = 2 \cdot \pi \cdot R$$

$$C = 2 \cdot \pi \cdot 5$$

$$C = 10\pi$$

Resposta: A



Q18.

$$\begin{array}{r} 1 \text{ VEZ} = 160 \\ 2 \text{ VEZES} = 100 \\ 3 \text{ VEZES} = 50 \\ \hline 310 \end{array}$$

Resposta: D

Q19.

REL	DIAS	ALUNOS	HORAS
$\frac{2}{5} \uparrow$	$10 \uparrow$	$24 \downarrow$	$7 \downarrow$
$\frac{3}{5} \uparrow$	$x \uparrow$	$20 \downarrow$	$6 \downarrow$
$\frac{2}{5} \cdot 20 = 6$	10		
$\frac{3}{5} \cdot 24 = 7$	x		
48	10	$x = 2$	
100,8	x		

Resposta: D

Q20.

$$\begin{array}{l} 5x^2 + bx + c \\ x' = -1 \\ x'' = \frac{2}{5} \end{array} \quad \begin{array}{l} -1 + \frac{2}{5} = -\frac{b}{5} \Rightarrow \frac{-5+2}{5} = \frac{-3}{5} = -\frac{b}{5} \\ -1 \cdot \frac{2}{5} = \frac{c}{a} \Rightarrow \frac{-2}{5} = \frac{c}{5} \end{array} \quad \begin{array}{l} b = +3 \\ c = -2 \end{array}$$
$$b \cdot c = +3 \cdot (-2) = -6$$

Resposta: E