

# trabalho final - mat C.

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## Parte 1 (EXERCÍCIOS)

$$① \begin{bmatrix} 0, \tilde{1} \\ 4 \end{bmatrix} \quad a) \quad \lambda_m \frac{4\tilde{1}}{3} - \frac{2\tilde{1}}{3} = \boxed{\frac{-\tilde{1}}{3}}$$

$$b) \frac{6\tilde{1}}{6} - \frac{5\tilde{1}}{6} = \frac{\tilde{1}}{6} = \boxed{-\lambda_m \frac{\tilde{1}}{3}}$$

$$\boxed{\lambda_m \frac{\tilde{1}}{6}}$$

$$c) \lambda_m \frac{5\tilde{1}}{3}$$

$$\frac{6\tilde{1}}{3} - \frac{5\tilde{1}}{3} = \frac{\tilde{1}}{3}$$

$$\boxed{\frac{-\lambda_m \tilde{1}}{3}}$$

$$d) \cos \frac{2\tilde{1}}{3}$$

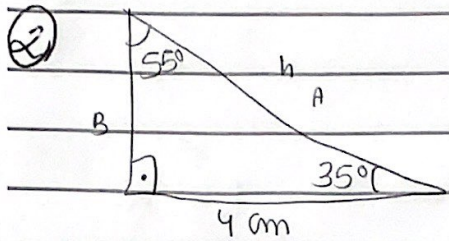
$$\frac{3\tilde{1}}{3} - \frac{2\tilde{1}}{3} = \frac{\tilde{1}}{3} \quad \boxed{\frac{-\cos \tilde{1}}{3}}$$

$$e) \cos \frac{7\tilde{1}}{6} = \boxed{\frac{-\cos \tilde{1}}{6}}$$

$$\frac{7\tilde{1}}{6} - \frac{6\tilde{1}}{6} = \frac{\tilde{1}}{6}$$

$$f) \cos \frac{4\tilde{1}}{3} = \boxed{\frac{-\cos \tilde{1}}{3}}$$

$$\frac{4\tilde{1}}{3} - \frac{3\tilde{1}}{3} = \frac{\tilde{1}}{3}$$



③

$$\lg 35 = \frac{x}{4}$$

$$0,700 = \frac{x}{4}$$

①

$$\lg 35 = \frac{4}{A}$$

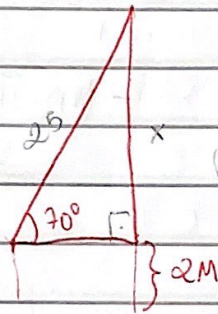
$$B = 2,8008$$

$$0,8191 = \frac{4}{a}$$

$$0,8191a = 4 \rightarrow A = 4,88311$$

$$a = \frac{4}{0,8191}$$

③



$$\tan 70 = \frac{x}{25}$$

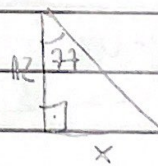
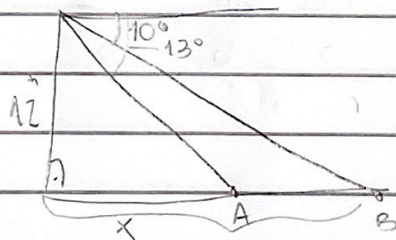
cos

$$x = 23,49$$

$$+ 2,00$$

$$x = 25,49m$$

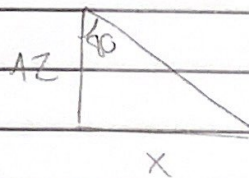
④



$$\lg 77 = \frac{x}{12}$$

$$x = 51,98$$

$$x = 16,1$$

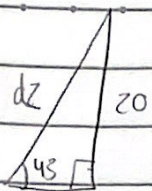


$$\lg 80 = \frac{x}{12}$$

$$x = 68,05$$



(5)



$$\sin 45 = \frac{20}{dz}$$

$$\frac{\sqrt{2}}{2} dz = 20$$

$$20\sqrt{2}^2 = 20^2 + x^2$$

$$dz = \frac{20}{\frac{\sqrt{2}}{2}}$$

$$BC = dz \times \cos 45$$

$$BC = \frac{20\sqrt{2} \times \sqrt{2}}{2}$$

$$dz = \frac{20 \cdot 2}{\sqrt{2}}$$

$$BC = 20$$

$$dz = \frac{40}{\sqrt{2}}$$

$$d_1^2 = (BC + 10)^2 + 20^2$$

$$dz = \frac{40\sqrt{2}}{2}$$

$$d_1^2 = (20 + 10)^2 + 20^2$$

$$d_1^2 = 30^2 + 20^2$$

$$dz = 20\sqrt{2}$$

$$d_1^2 = 900 + 400$$

$$d_1 = 10\sqrt{13}$$

(6)

$$\sin 90 = \frac{x}{\frac{x}{\sin 45}} \rightarrow \frac{x}{\frac{\sqrt{2}}{2}} = 8$$

$$x = \frac{8\sqrt{2}}{2} = 4\sqrt{2} \text{ cm}$$

$$x = h$$

$$V = \pi \cdot r^2 \cdot h$$

$$V = 3^2 \cdot 4\sqrt{2} \cdot \pi$$

$$V = 9 \cdot 4\sqrt{2} \cdot \pi$$

$$V = 36\sqrt{2} \pi \text{ cm}^3$$

Questão 7

Q7 Q7

$$C = \frac{\theta \pi r}{180^\circ}$$

$$C = \frac{200 \cdot \pi \cdot 6}{180}$$

$$C = \frac{1200 \pi \cdot 60}{180}$$

$$C = \frac{2011}{3}$$

$$76 = \frac{4 \cdot \pi \cdot r}{180}$$

$$360 \rightarrow 2\pi$$

$$76 = \frac{229 \pi \cdot r}{180}$$

$$\theta \rightarrow 410$$

$$13680 = 229 \cdot \pi \cdot R$$

$$\frac{13680}{229} = \pi R$$

$$59.73 = \pi R$$

$$R = 59.73$$

$$R = 19 \text{ cm}$$

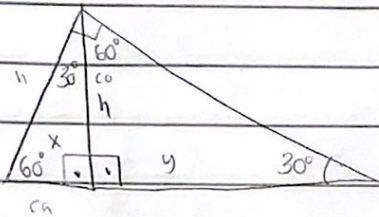


(8)

$$\frac{30m \cdot 180}{11 \cdot 10} \rightarrow \frac{54}{3,14} = 17,19$$

rep  $\rightarrow 17^{\circ} 11' 19''$

(9)



$$\cos 30^{\circ} = \frac{x}{x+y}$$

$$\tan 30 = \frac{h}{y}$$

$$\tan 60 = \frac{h}{x}$$

$$\frac{\sqrt{3}}{3} = \frac{h}{y}$$

$$\sqrt{3}x = h$$

$$x = \frac{h}{\sqrt{3}}$$

$$\sqrt{3}y = h$$

$$3y = h$$

$$\frac{\sqrt{3}}{3}$$

$$y = h \cdot \frac{3}{\sqrt{3}}$$

$$y = \frac{3h}{\sqrt{3}}$$

$$y = \sqrt{3}h$$

$$\sqrt{3}$$

$$y = \sqrt{3} \cdot h$$

10)

$$\cos 20 = \frac{4-h}{3}$$

$$0,94 = \frac{4-h}{3}$$

$$2,82 = 4-h$$

$$R = 1,18m$$