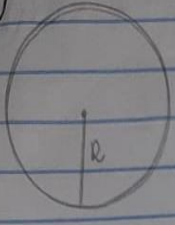


Evelyn Santos de Santana

CTII348

Área do Círculo

① $R = 1,5 \text{ Km}$; $\pi = 3,14$



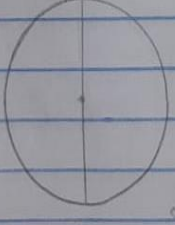
$2p = C0$
 $C0 = 2\pi r$
 $C0 = 2 \cdot 3,14 \cdot 1,5$
 $C0 = 9,42$

O carro tinha 120 l de gasolina, a cada 6 Km gasta um litro, então
 $6 \cdot 120 = 720 \text{ Km}$ que o carro percorreu
a pista tem 9,42 Km

$n^\circ \text{ voltas} = \frac{720 \text{ Km}}{9,42 \text{ Km}} = 76,43$

O piloto deu 76 voltas completas.

②



DIAMETRO = $2r = 4 \text{ cm}$
 $r = 2 \text{ cm}$

$2p = C0$
 $C0 = 2\pi r$
 $C0 = 2\pi \cdot 2$
 $C0 = 4\pi$

O carro deu 10 voltas, então ele percorreu
 $10 \cdot 4\pi = 40\pi$

3



$$r = 1$$

$$d = r \cdot 2$$

$$d = 1 \cdot 2$$

$$d = 2$$

$$A_{\text{ext}} = A_c - A_q$$

$$A_c = \pi \cdot r^2$$

$$A_c = \pi \cdot 1^2$$

$$A_c = \pi \cdot 1$$

$$A_c = \pi$$

$$d = l\sqrt{2}$$

$$2 = l\sqrt{2}$$

$$l = \frac{2}{\sqrt{2}}$$

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

$$l = 2\sqrt{2}$$

$$l = \frac{2}{\sqrt{2}}$$

$$l = \sqrt{2}$$

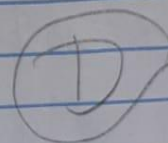
$$A_q = l^2$$

$$A_q = (\sqrt{2})^2$$

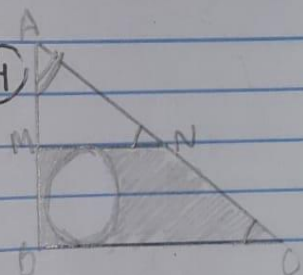
$$A_q = 2$$

$$A_{\text{ext}} = A_c - A_q$$

$$A_{\text{ext}} = \pi - 2$$



4



$$\pi = 3,1$$

$$B = BC = 8$$

$$b = MN = 4$$

$$r = MB/2 = 4/2 = 2$$

$$A_{\text{hac}} = A_{\text{trap}} - A_c$$

Semelhanças de triângulos

$$\frac{AB}{AM} = \frac{BC}{MN} \rightarrow \frac{8}{4} = \frac{8}{MN}$$

$$MN \cdot 8 = 8 \cdot 4$$

$$MN = 8 \cdot 4 / 8$$

$$MN = 4$$

$$A_{\text{trap}} = \frac{(B+b) \cdot h}{2} \rightarrow \frac{(8+4) \cdot 4}{2} \rightarrow (12) \cdot 2$$

$$A_{\text{trap}} = 24 \text{ cm}^2$$

$$A_c = \pi \cdot r^2$$

$$A_c = 3,1 \cdot 2^2$$

$$A_c = 3,1 \cdot 4$$

$$A_c = 12,4$$

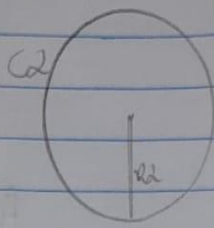
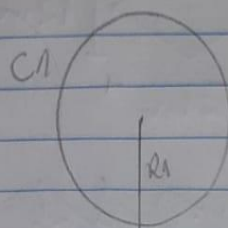
$$A_{hac} = A_{trap} - A_c$$

$$A_{hac} = 24 - 12,4$$

$$A_{hac} = 11,6$$

(A)

5)



$$r_1 = 10 \text{ cm}$$

$$r_2 = 5 \text{ cm}$$

Razão entre a área de C_1 e o perímetro de C_2

$$R_g = \frac{A_{C1}}{C_{C2}}$$

$$A_{C1} = \pi \cdot r_1^2$$

$$A_{C1} = \pi \cdot 10^2$$

$$A_{C1} = 100\pi$$

$$C_{C2} = 2\pi \cdot r_2$$

$$C_{C2} = 2\pi \cdot 5$$

$$C_{C2} = 10\pi$$

$$R_g = \frac{100\pi}{10\pi}$$

$$R_g = 10 \text{ cm}$$

(C)

6) Superfície $\rightarrow 1 \text{ cm}^2 = 10 \text{ mm}^2$
 Diâmetro do vírus $= 0,02 \cdot 10^{-3}$

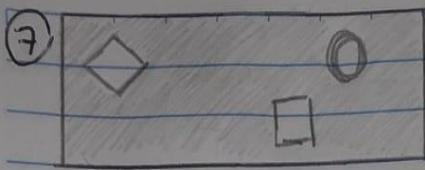
$$\frac{10}{0,02 \cdot 10^{-3}} = 500000 \rightarrow 5 \cdot 10^5 \text{ (Vírus por fileiras)}$$

$$5 \cdot 10^5 \cdot 5 \cdot 10^5 = 25 \cdot 10^{10}$$

(C)

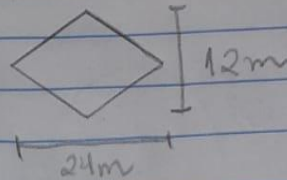
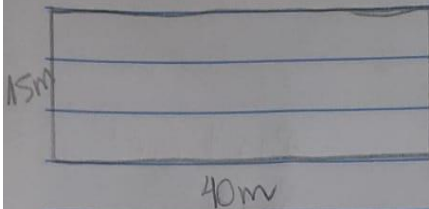
data

S T Q Q S S D



$$A_{GRAM} = A_{RET} - (A_{LSQ} + A_C + A_Q)$$

$$Q_{GASTA} = A_{GRAM} \cdot 2,40$$



$$A_{RET} = b \cdot h$$

$$A_{RET} = 40 \cdot 15$$

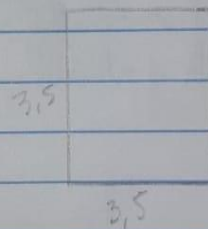
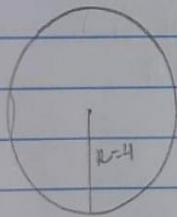
$$A_{RET} = 600 \text{ m}^2$$

$$A_{LSQ} = D \cdot d / 2$$

$$A_{LSQ} = 24 \cdot 12 / 2$$

$$A_{LSQ} = 12 \cdot 12$$

$$A_{LSQ} = 144 \text{ m}^2$$



$$A_C = \pi \cdot R^2$$

$$A_C = 3,14 \cdot 4^2$$

$$A_C = 3,14 \cdot 16$$

$$A_C \approx 50,25 \text{ m}^2$$

$$A_Q = l^2$$

$$A_Q = 3,5^2$$

$$A_Q = 12,25$$

$$A_{GRAM} = A_{RET} - (A_{LSQ} + A_C + A_Q)$$

$$A_{GRAM} = 600 - (144 + 50,25 + 12,25)$$

$$A_{GRAM} = 600 - 206,5$$

$$A_{GRAM} = 393,5 \text{ m}^2$$

$$Q_{GASTA} = A_{GRAM} \cdot 2,40$$

$$Q_{GASTA} = 393,5 \cdot 2,40$$

$$Q_{GASTA} = 944,40$$

C