

Área do círculo

① $C = 2 \cdot \pi \cdot R$

$R = 1.5 \text{ km}$

6 km por litro (120 litros) $\rightarrow 120 \cdot 6 = 720 \text{ km}$

nº Voltas = ?

$C = 2 \cdot \pi \cdot 1.5$

$C = 3\pi$

$C = 3 \cdot 3.14$

$C = 9.42$

$n = \frac{720}{9.42}$

$n = 76.43$

$n \approx 76$

Alternativa C

② 10 Voltas

diâmetro = 4 cm \rightarrow raio = 2 cm

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

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

$C = 4\pi \Rightarrow 10 \text{ Voltas} = 4\pi \cdot 10 = 40\pi$

alternativa C

③ Área = ?

$A = ? \rightarrow A = \text{Área do círculo} - \text{Área do triângulo}$

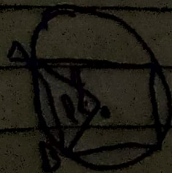
$AD = l^2 \rightarrow l^2 = l^2 + l^2 = 2l^2$

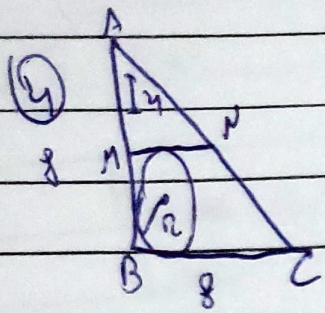
$A_0 = \pi \cdot r^2$

$A = \pi \cdot (1)^2 - (\sqrt{2})^2$

$A = \pi - 2$

Alternativa D





$$\pi = 3.1$$

$$r = \frac{h}{2}$$

$$r = \frac{8}{2} = 4$$

$$AB = BC$$

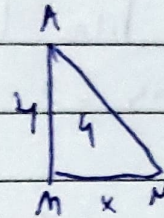
$$AM = MN$$

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

$$8x = 32$$

$$x = \frac{32}{8}$$

$$x = 4$$



$$A_{MNBC} = \frac{(B+b) \cdot h}{2}$$

$$A_{MNBC} = \frac{(8+4) \cdot 4}{2}$$

$$A_{MNBC} = \frac{12 \cdot 4}{2}$$

$$A_{MNBC} = 12 \cdot 2$$

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

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

$$A_c = 3.1 \cdot 2^2$$

$$A_c = 3.1 \cdot 2$$

$$A_c = 12.4 \text{ cm}$$

$$A_{\text{total}} = 24 - 12.4$$

$$A_{\text{total}} = 11.6 \text{ cm}^2$$

Alternativa A

⑤ $C_1 \rightarrow r_1 = 10 \text{ cm}$

$$C_2 \rightarrow r_2 = 5 \text{ cm}$$

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

$$A_{C2} = 2 \cdot \pi \cdot r$$

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

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

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

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

$$A_{\text{total}} = \frac{100\pi}{10\pi} = 10 \text{ cm}$$

Alternativa C

⑥ $\text{diâmetro} = 0,02 \cdot 10^{-3} \text{ mm} = D$
 $A = 1 \text{ cm}^2$

$$D_{\text{vires}} = 0,02 \cdot 10^{-3} \cdot 10^{-1}$$

$$D_{\text{vires}} = 0,02 \cdot 10^{-4}$$

$$D = 2 \cdot 10^{-2} \cdot 10^{-4} = 2 \cdot 10^{-6} \text{ cm}$$

\rightarrow quantos vírus caem em uma fileira de 1 cm^2 $\frac{1}{1}$

$$\frac{1}{2 \cdot 10^{-6}} = 0,5 \cdot 10^6 = 5 \cdot 10^{-4} \cdot 10^6 = 5 \cdot 10^5$$

\rightarrow 5 fileiras verticais e horizontais

$$(5 \cdot 10^5) \cdot (5 \cdot 10^5)$$

$$= 25 \cdot 10^{10} \text{ Alternativa c)}$$

⑦ $A_{\text{grama}} = A_{\text{terreno}} - A_{\text{casas}} - A_{\text{ruas}} - A_{\text{vestiários}}$
 $A_g = A_T - A_C - A_R - A_V$

$$A_g = 15.40 - 12.24 - \pi \cdot 4^2 - 3,5 \cdot 3,5$$

\times

$$A_g = 600 - 144 - 3,14 \cdot 16 - 12,25$$

$$A_g = 456 - 50,24 - 12,25$$

$$A_g = 393,51 \text{ m}^2$$

m^2	$\text{R\$}$
1	2,40
393,51	\times

$$x = 393,51 \cdot 2,4$$

$$x = 944,424$$

Alternativa c