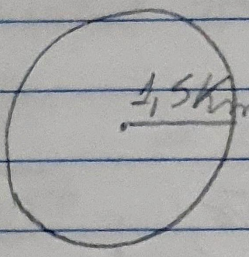
Tarefa Básico - Área do Círculo

Nome: Bárbara O. Grosse, CT11350.

(1) 

total litros = 120L
1L — 6Km
nº voltas = ?

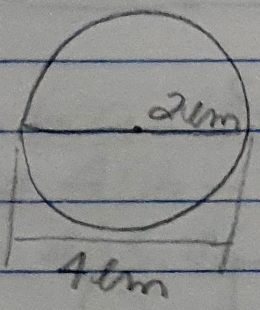
$\pi = 3{,}14$

$\begin{matrix} 1L & \times & 6Km \\ 120L & & x \end{matrix}$ $\quad x = 120 \cdot 6 = 720Km$

1 volta = comprimento $\odot = 2 \cdot \pi \cdot R$
$= 2 \cdot 3{,}14 \cdot 1{,}5 = 9{,}42Km$

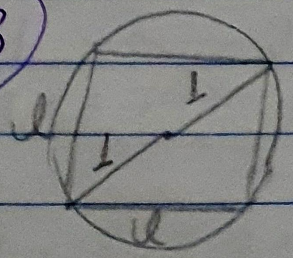
$\begin{matrix} 1 \text{ volta} & \times & 9{,}42Km \\ v & & 720Km \end{matrix}$ $\quad 9{,}42v = 720$

$v = \frac{720}{9{,}42} \cong \boxed{76 \text{ voltas}}$ (C)

(2) 

1 volta = $2\pi R = 2 \cdot \pi \cdot 2 = 4\pi$

10 voltas = $10 \cdot 4\pi = \boxed{40\pi}$ (C)

(3) 

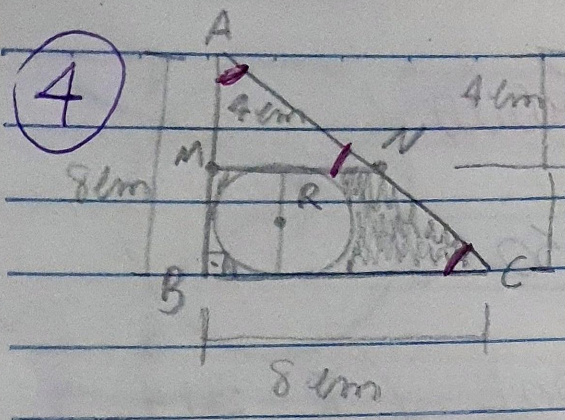
diagonal quadrado = $l\sqrt{2}$

$2 = l\sqrt{2}$

$l = \frac{2}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{2\sqrt{2}}{(\sqrt{2})^2} = \frac{2\sqrt{2}}{2} = \sqrt{2}$

Área região = A⊙ − A□
$A_R = \pi \cdot 1^2 - (\sqrt{2})^2$ $\quad \rightarrow A_R = \boxed{\pi - 2}$ (D)

④

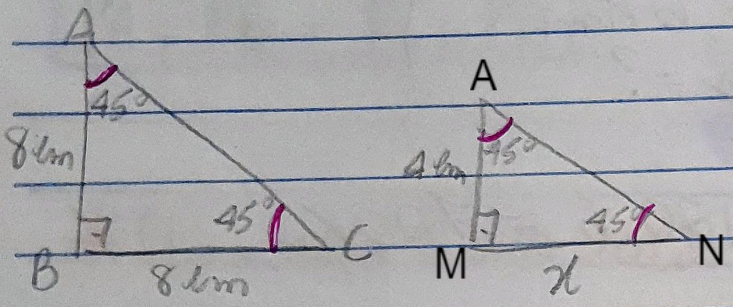


4 cm

h = 4 cm

* $A_{hachurada} = A_{MNCB} - A_{\ominus}$

* $R = \frac{h}{2} = \frac{4}{2} = 2\ cm$



semelhantes

Δ ambos isósceles, então:

$x = 4\ cm$

isósceles

* $A_{\mathcal{H}} = A_{MNCB} - A_{\ominus}$

$A_{\mathcal{H}} = \frac{(8+4).4}{2} - \pi . 2^2$

$A_{\mathcal{H}} = 12.2 - 3,1.4 \Rightarrow A_{\mathcal{H}} = 24 - 12,4 = \boxed{11,6\ cm^2}$ (A)

⑤ $C_1 \rightarrow R_1 = 10\ cm$

$C_2 \rightarrow R_2 = 5\ cm$

$\frac{\text{Área } C_1}{\text{Perímetro } C_2} = ? \rightarrow$

$\frac{A_{C1}}{P_{C2}} = \frac{\pi . 10^2}{2.\pi . 5} = \frac{100}{2.5} = \frac{100}{10} = \boxed{10\ cm}$ (C)

⑥ Diâmetro vírus $= 0,02.10^{-3}\ mm$

Área colônia $= 1\ cm^2$

$D_{vírus} = 0,02.10^{-3}.10^{-1}\ cm$

$= 0,02.10^{-4}\ cm$

$= 2.10^{-2}.10^{-4} = 2.10^{-6}\ cm$

Superfície: $1\,cm^2$ → $1\,cm \times 1\,cm$

*Quantos vírus cabem um 1 filvro Horizontal de 1 cm?

$$\frac{1}{2.10^{-6}} = 0,5.10^{6} = 5.10^{-1}.10^{6} = 5.10^{5}$$

* Na filvro vertical cabe o mesmo valor, então:

total vírus $= (5.10^5).(5.10^5)$
$= \boxed{25.10^{10}}$ (C)

(7) $A_{grama} = A_{terreno} - A_{casa} - A_{piscina} - A_{vestiário}$

$A_g = A_{\square\ 40m \times 15m} - A_{\diamond\ 12 \times 24} - A_{\frac{1}{2}\ 4m} - A_{\square\ 3,5m \times 3,5m}$

$$A_g = 15.40 - \frac{12.24}{2} - \pi.4^2 - 3,5.3,5$$

$A_g = \underline{600 - 144} - \underline{3,14.16} - 12,25$
$A_g = 456 - 50,24 - 12,25$
$A_g = 405,76 - 12,25 = 393,51\ m^2$

m^2	R$
1	2,40
393,51	x

$x = 393,51.2,4$
$x \cong \boxed{R\$944,40}$ (C)