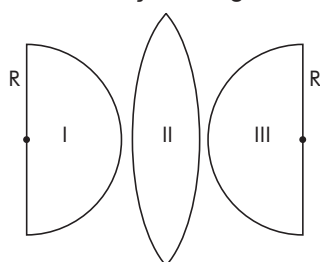


Exercícios de casa resolvidos

Extensivo – Caderno 6 – Matemática III

Aulas 28 e 29 – Página 221

4. Planificação do “gomo”

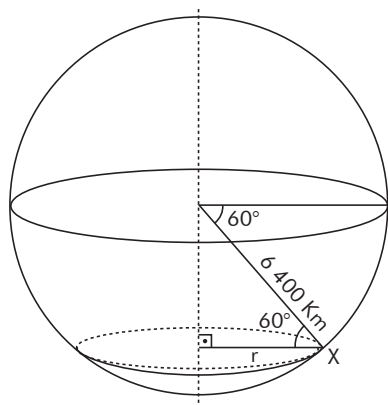


$$S = I + II + III$$

$$S = \frac{\pi R^2}{2} + \frac{4\pi R^2}{12} + \frac{\pi R^2}{2} = \frac{4\pi}{3} R^2$$

Resposta: E

10.



$$\cos 60^\circ = \frac{r}{6400} = \frac{1}{2}$$

$$r = 3200 \text{ km}$$

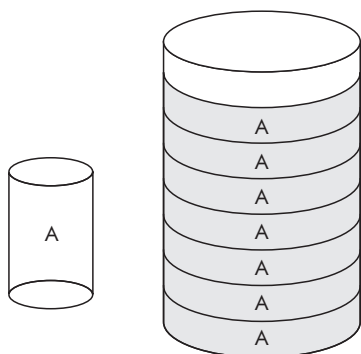
$$C = 2 \cdot \pi \cdot 3200 = 19200 \text{ km}$$

Resposta: E

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8. $V_A = \pi r^2 h$
 $V_B = \pi(2r)^2 \cdot (2h) = 8\pi r^2 h$ $V_B = 8 V_A$

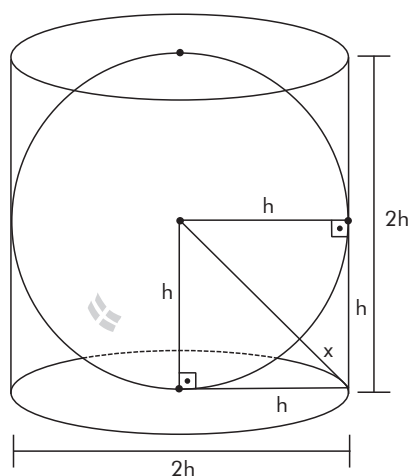
Volume de água, pelo enunciado:



$$V_{A_{\text{água}}} = \frac{1}{7} V_{B_{\text{água}}}$$

Resposta: D

11.



$$x = h\sqrt{2} - h$$

$$x = h(\sqrt{2} - 1)$$

Resposta: D

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5. $V_{total} = V_A + V_B$

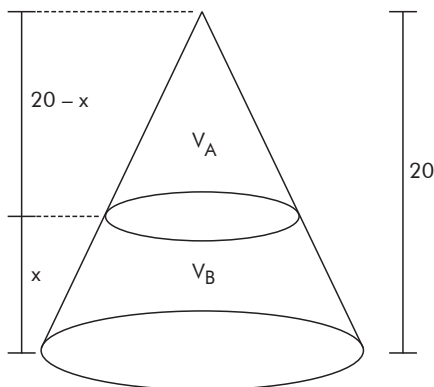
$V_B = \frac{37}{64} V_{total}$

$V_A = \frac{27}{64} V_{total}$

$\left(\frac{20}{20-x}\right)^3 = \frac{V_{total}}{\frac{27}{64} V_{total}} = \frac{64}{27}$

$\frac{20}{20-x} = \frac{4}{3}$

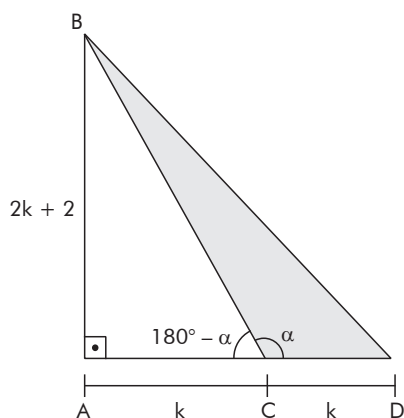
$x = 5 \text{ cm}$



Resposta: E

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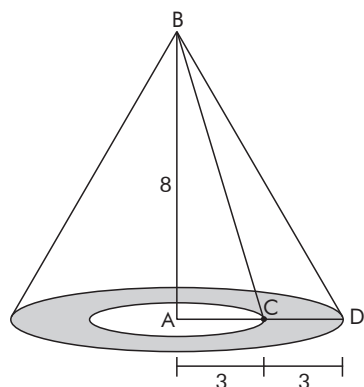
15.



$\text{tg}(180^\circ - \alpha) = -\text{tg} \alpha$

$\frac{2k+2}{k} = \frac{8}{3}$

$k = 3$



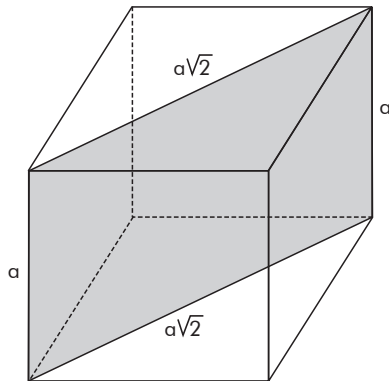
$V_{resultante} = \frac{1}{3} \pi \cdot 6^2 \cdot 8 - \frac{1}{3} \pi \cdot 3^2 \cdot 8$

$V_{resultante} = 96\pi - 24\pi = 72\pi$

Resposta: A

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1.



$$a \cdot a\sqrt{2} = 16\sqrt{2}$$

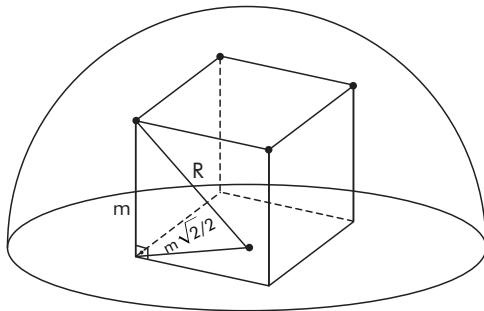
$$a = 4 \text{ cm}$$

$$S = 6a^2 = 96 \text{ cm}^2$$

Resposta: E

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6.



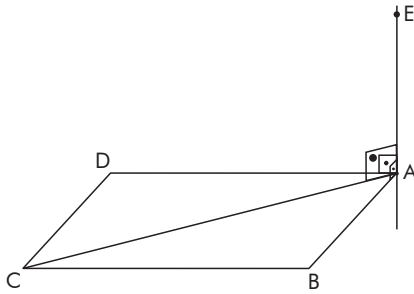
$$R^2 = m^2 + \left(m \frac{\sqrt{2}}{2}\right)^2$$

$$m = R\sqrt{\frac{2}{3}}$$

Resposta: A

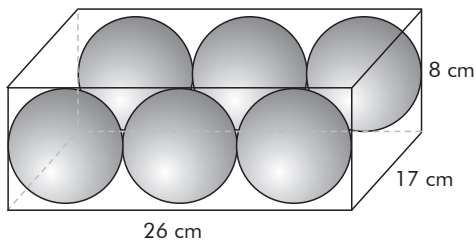
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4. EA e AC



Resposta: D

6.



Diâmetro da maior esfera é 8 cm:

$$17 \overline{) 8} \quad \text{e} \quad 26 \overline{) 8}$$

$$1 \quad 2 \qquad \qquad 2 \quad 3$$

$$2 \cdot 3 = 6$$

Resposta: D