

Sphere

Dec. 13/16

$$SA = 4\pi r^2$$

$$V = \left(\frac{4}{3}\right) (\pi r^3) \text{ or } \frac{4\pi r^3}{3}$$

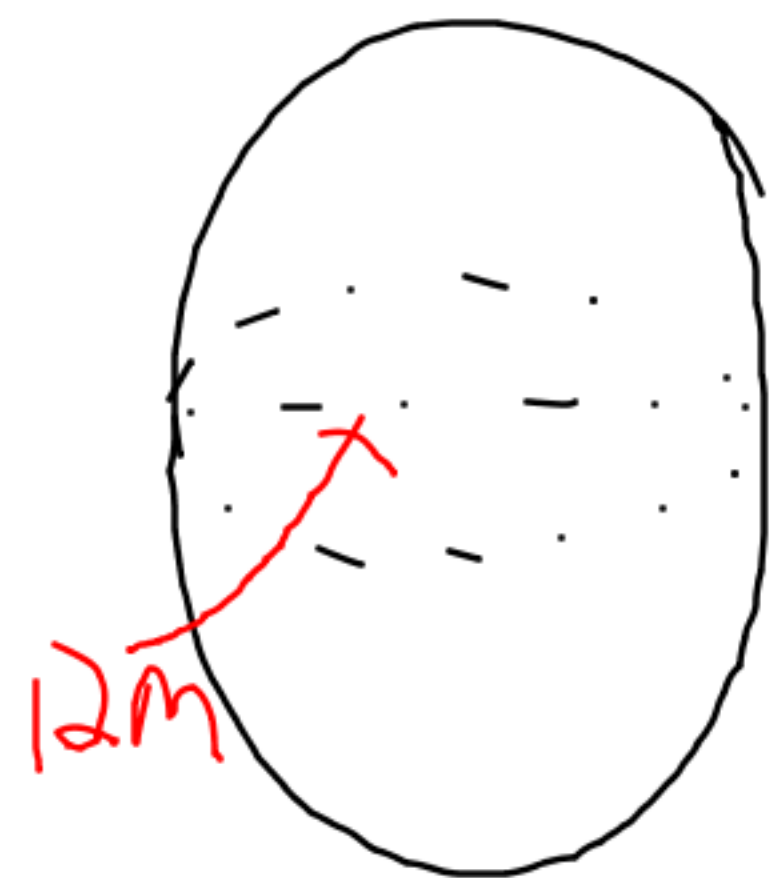
Cone

slant
↑

$$SA = \pi r \underline{s} + \pi r^2$$

$$V = \frac{\pi r^2 h}{3}$$

1)



$$SA = 4\pi r^2$$

$$= 4\pi 6^2$$

$$SA = 452.4 \text{ m}^2$$

$$r = \frac{12}{2}$$

$$= 6 \text{ m}$$

$$V = \frac{4\pi r^3}{3}$$

$$= \frac{4\pi 6^3}{3}$$

$$= \frac{4\pi 216}{3}$$

$$V = 904.8 \text{ m}^3$$

$$3) SA = 4 \cdot \pi \cdot r^2$$

$$r = 7$$

$$SA = 4 \cdot \pi \cdot 7^2$$

$$SA = 4 \cdot \pi \cdot 49$$

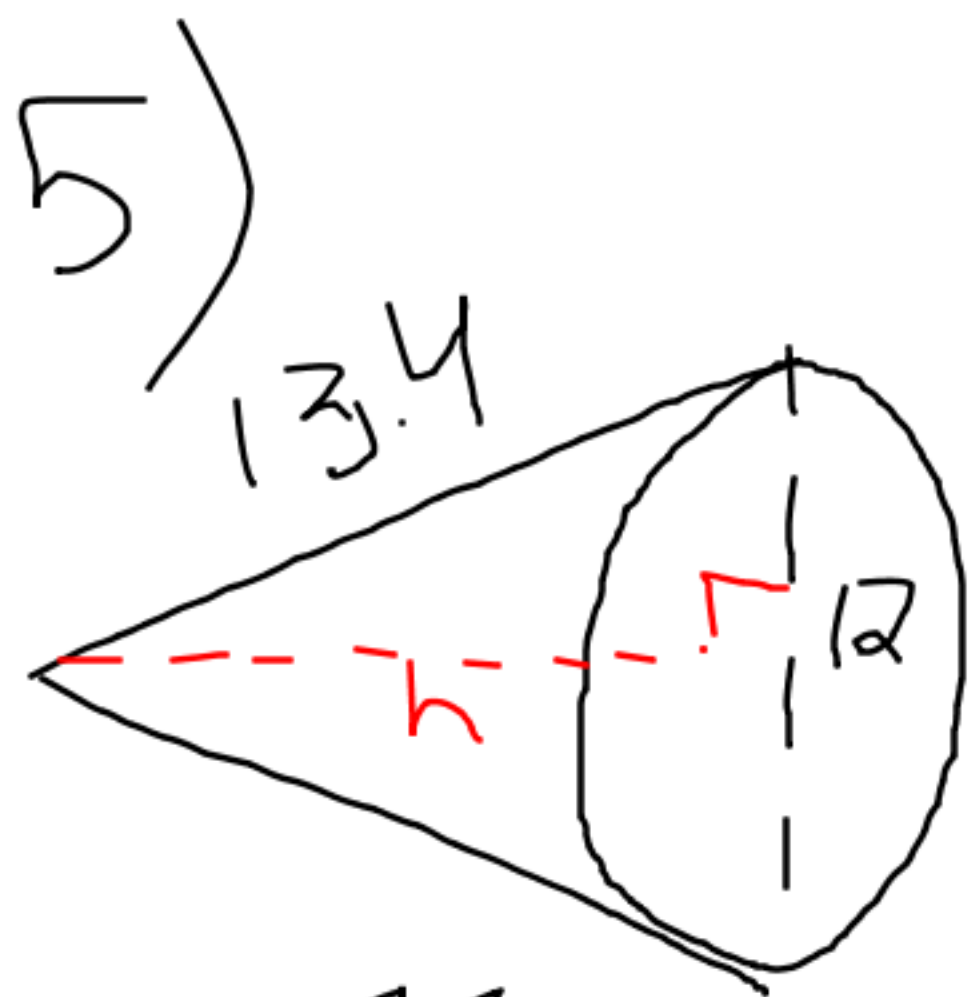
$$SA = 615.8 \text{ km}^2$$

$$V = 1,436.8 \text{ km}^3$$

$$V = \frac{4 \cdot \pi \cdot r^3}{3}$$

$$V = \frac{4 \cdot \pi \cdot 7^3}{3}$$

$$V = \frac{4 \cdot \pi \cdot 343}{3}$$



$$h = 11.98 \text{ cm}$$

$$r = 6 \text{ cm}$$

$$s = 13.4 \text{ cm}$$

$$a^2 + b^2 = c^2$$

$$a^2 + 6^2 = 13.4^2$$

$$a^2 + 36 = 179.56$$

$$\sqrt{a^2} = \sqrt{143.56}$$

$$a = 11.98 \text{ cm}$$

$$\begin{aligned} SA &= \pi r s + \pi r^2 \\ &= \pi (6)(13.4) + \pi 6^2 \\ &= 252.46 + 113.04 \end{aligned}$$

$$SA = 365.5 \text{ cm}^2$$

$$V = \frac{\pi r^2 h}{3}$$

$$= \frac{\pi (6^2)(11.98)}{3}$$

$$= \frac{1354.2}{3}$$

$$V = 451.6 \text{ cm}^3$$

$$2) \quad SA = 4\pi r^2$$

$$= 4\pi 3.9^2$$

$$= 191.13 \text{ km}^2$$

$$r = \frac{7.8}{2}$$

$$r = 3.9$$

$$V = \frac{4\pi r^3}{3}$$

$$= \frac{4\pi 3.9^3}{3}$$

$$= 248.5 \text{ km}^3$$

