

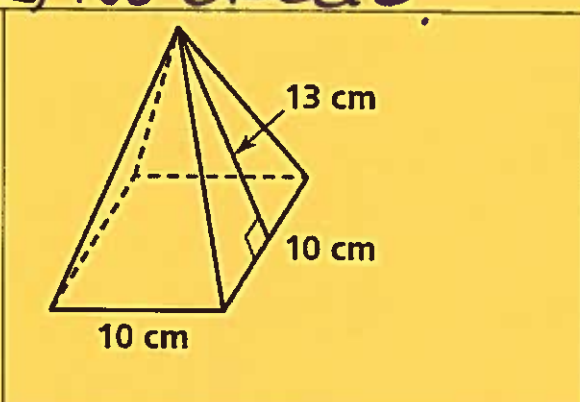
Surface Area and Volume Review

Name Key

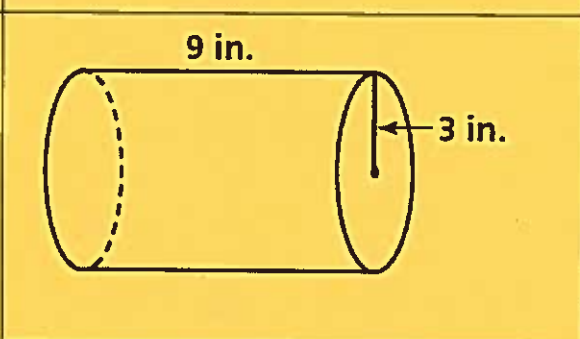
No Work, No Credit!

Find the indicated measurements.

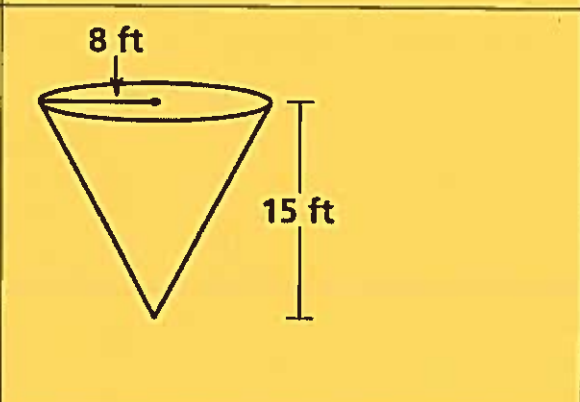
1. Height = 12 cm  
 Slant height = 13 cm  
 Area of Base =  $100 \text{ cm}^2$   
 Lateral Area =  $260 \text{ cm}^2$   
 Surface Area =  $360 \text{ cm}^2$   
 Volume =  $400 \text{ cm}^3$



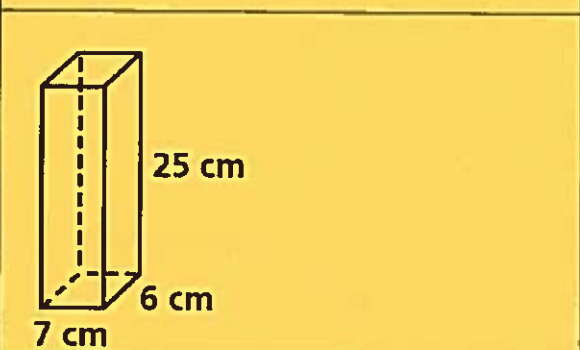
2. Height = 9 in  
 Area of Base =  $9\pi \text{ in}^2$   
 Lateral Area =  $54\pi \text{ in}^2$   
 Surface Area =  $72\pi \text{ in}^2$   
 Volume =  $81\pi \text{ in}^3$



3. Height = 15 ft  
 Slant height = 17 ft  
 Area of Base =  $64\pi \text{ ft}^2$   
 Lateral Area =  $136\pi \text{ ft}^2$   
 Surface Area =  $200\pi \text{ ft}^2$   
 Volume =  $320\pi \text{ ft}^3$



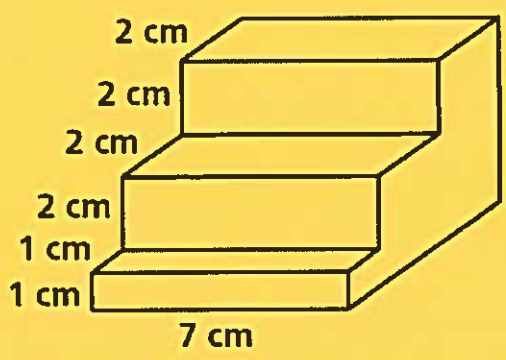
4.  
 Surface Area =  $734 \text{ cm}^2$   
 Volume =  $1050 \text{ cm}^3$



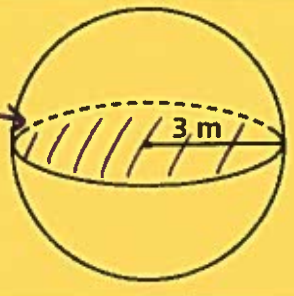
5. The surface area of a right cylinder is  $324\pi \text{ cm}^2$ .  
 If the radius and height are equal find the length of the diameter.

$r = 9 \text{ cm} \rightarrow \text{diameter} = 18 \text{ cm}$

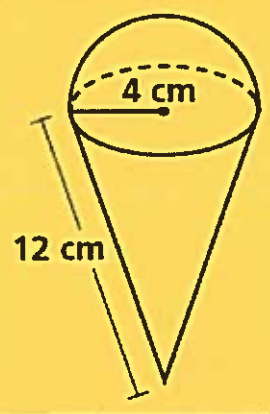
6. Height = 7 cm  
 Area of Base =  $17 \text{ cm}^2$   
 Lateral Area =  $140 \text{ cm}^2$   
 Surface Area =  $174 \text{ cm}^2$   
 Volume =  $119 \text{ cm}^3$



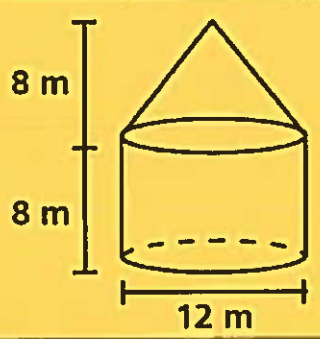
7. Height =  $\frac{4}{3} \text{ cm}$   
 Area of Great Circle =  $9\pi \text{ m}^2$   
 Surface Area =  $36\pi \text{ m}^2$   
 Volume =  $36\pi \text{ m}^3$



8. Height of cone = 11.3 cm  
 Slant height of cone = 12 cm  
 Surface Area of Hemisphere =  $16\pi \text{ cm}^2$   
 Lateral Area of cone =  $48\pi \text{ cm}^2$   
 Surface Area of figure =  $80\pi \text{ cm}^2$   
 Volume of figure =  $103\pi \text{ cm}^3$



9.  
 Surface Area =  $192\pi \text{ m}^2$   
 Volume =  $384\pi \text{ m}^3$



10.  
 Surface Area =  $2624 + 224\pi \approx 3327.7 \text{ cm}^2$   
 Volume =  $10240 + 640\pi \approx 12250.6 \text{ cm}^3$

