

Name: Kelly

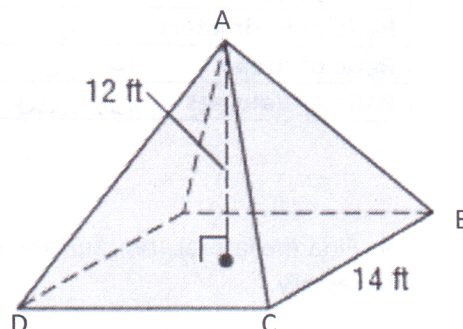
Date: _____

Ch. 12 Review

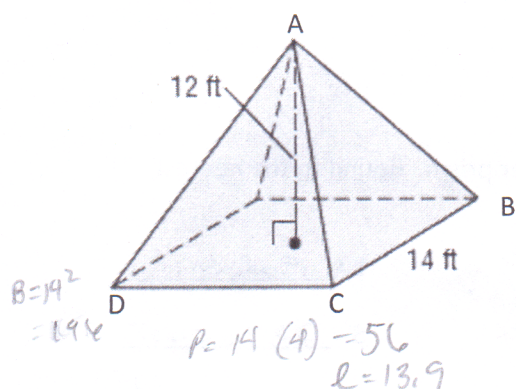
For numbers 1-4 Use the diagram to the right

1. What is the length of the altitude? 12 ft
2. Name a lateral edge? AC or AB or AD
3. What is the length of the base edge? 14 ft
4. What is the length of the slant height? 13.9 ft

$$\begin{aligned} 7^2 + 12^2 &= l^2 \\ \sqrt{193} &= \sqrt{l^2} \\ 13.9 &= l \end{aligned}$$



5. Find the lateral area, surface area, and volume of the pyramid. Round to the nearest tenth if necessary.

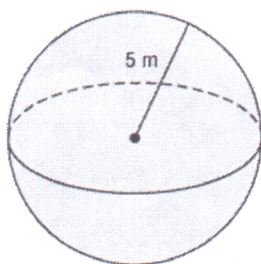


$$\begin{aligned} L &= \frac{1}{2} P l \\ &= \frac{1}{2} (56) (13.9) \\ L &= 389.2 \\ S &= \frac{1}{2} P l + B \\ &= 389.2 + 196 \\ S &= 585.2 \end{aligned}$$

$$\begin{aligned} L &= \underline{389.2 \text{ ft}^2} \\ S &= \underline{585.2 \text{ ft}^2} \\ V &= \underline{784 \text{ ft}^3} \end{aligned}$$

$$\begin{aligned} V &= \frac{1}{3} B h \\ &= \frac{1}{3} (196) (12) \\ V &= 784 \end{aligned}$$

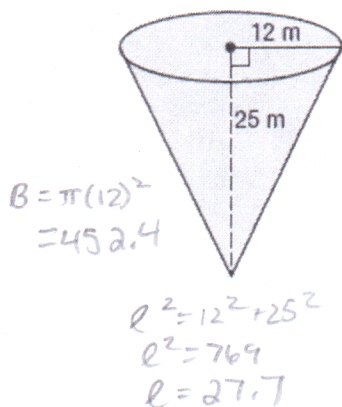
6. Find the surface area and volume of the sphere. Round to the nearest tenth if necessary.



$$\begin{aligned} S &= 4\pi r^2 \\ &= 4\pi (5)^2 \\ S &= 314.2 \\ V &= \frac{4}{3} \pi r^3 \\ &= \frac{4}{3} \pi (5)^3 \\ V &= 523.6 \end{aligned}$$

$$\begin{aligned} S &= \underline{314.2 \text{ m}^2} \\ V &= \underline{523.6 \text{ m}^3} \end{aligned}$$

7. Find the lateral area, surface area, and volume of the cone. Round to the nearest tenth if necessary.



$$\begin{aligned} L &= \pi r l \\ &= \pi (12) (27.7) \\ L &= 1044.3 \\ S &= \pi r l + \pi r^2 \\ &= 1044.3 + 452.4 \\ S &= 1496.7 \end{aligned}$$

$$\begin{aligned} L &= \underline{1044.3 \text{ m}^2} \\ S &= \underline{1496.7 \text{ m}^2} \\ V &= \underline{3769.9 \text{ m}^3} \end{aligned}$$

$$\begin{aligned} V &= \frac{1}{3} \pi r^2 h \\ &= \frac{1}{3} \pi (12)^2 (25) \\ V &= 3769.9 \end{aligned}$$