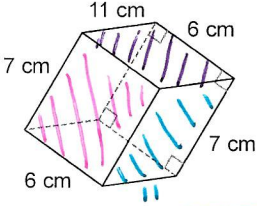
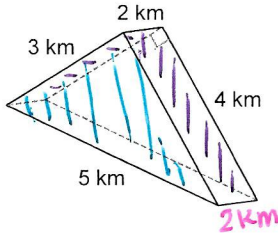
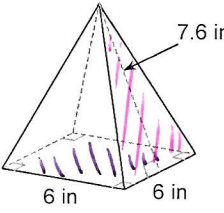


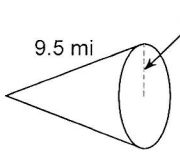
### Geometry & Trig Review

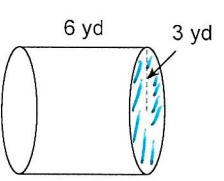
Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.

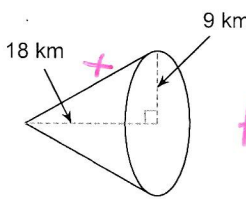
1)   $2(11 \cdot 6) = 132$   
 $2(11 \cdot 7) = 154$   
 $2(7 \cdot 6) = 84$   
**370 cm<sup>2</sup>**

2)   $2(\frac{1}{2} \cdot 3 \cdot 4) = 12$   
 $5 \cdot 2 = 10$   
 $4 \cdot 2 = 8$   
 $3 \cdot 2 = 6$   
**36 km<sup>2</sup>**

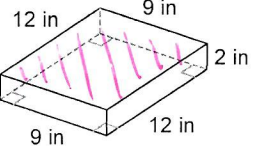
3)   $4(\frac{1}{2} \cdot 6 \cdot 7.6) = 91.2$   
 $6 \cdot 6 = 36$   
**127.2 in<sup>2</sup>**

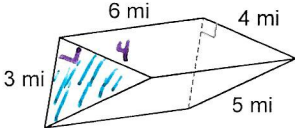
4)   $A = \pi r l + A = \pi r^2$   
 $A = \pi(3)(9.5) + \pi(3)^2$   
 $A = 28.5\pi + 9\pi = 37.5\pi$   
**A = 117.81 mi<sup>2</sup>**

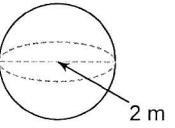
5)   $A = 2\pi r h + 2(\pi r^2)$   
 $2\pi(3)(6) + 2(\pi \cdot 3^2)$   
 $36\pi + 18\pi$   
 $54\pi$   
**169.65 yd<sup>2</sup>**

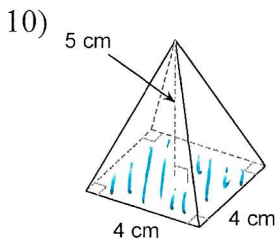
6)   $9^2 + 18^2 = x^2$   
 $x = \sqrt{405}$   
 $A = \pi r l + \pi r^2$   
 $= \pi(9)(\sqrt{405}) + \pi(9)^2$   
**= 823.48 km<sup>2</sup>**

Find the volume of each figure. Round your answers to the nearest hundredth, if necessary.

7)   $V = Ah$   
 $V = (12 \cdot 9) \cdot 2$   
**V = 216 in<sup>3</sup>**

8)   $V = Ah$   
 $V = (\frac{1}{2} \cdot 3 \cdot 4) \cdot 6$   
**V = 36 mi<sup>3</sup>**

9)  find surface area + volume  
 $SA = 4\pi r^2$   
 $= 4\pi(1)$   
 $= 4\pi \approx$  **12.57 m<sup>2</sup>**  
 $V = \frac{4}{3}\pi(1)^3$   
 $= \frac{4}{3}\pi \approx$  **4.19 m<sup>3</sup>**

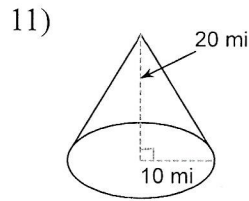


$$V = \frac{1}{3} A h$$

$$\frac{1}{3} (4 \cdot 4) (5)$$

$$\frac{1}{3} (80)$$

$$\boxed{26.67 \text{ cm}^3}$$

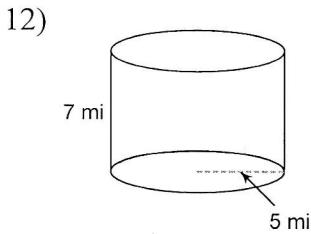


$$V = \frac{1}{3} \pi r^2 h$$

$$= \frac{1}{3} \pi (10)^2 (20)$$

$$\frac{1}{3} \pi (2000)$$

$$\boxed{2094.40 \text{ mi}^3}$$

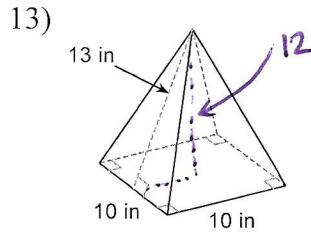


$$V = \pi r^2 h$$

$$= \pi (5)^2 (7)$$

$$= 175\pi$$

$$\boxed{549.78 \text{ mi}^3}$$



13-5-12 triangle:  $x^2 + 5^2 = 13^2$   
 $x = 12$

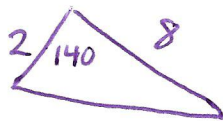
$$V = \frac{1}{3} A h$$

$$V = \frac{1}{3} (10 \cdot 10) \cdot 12$$

$$= \boxed{400 \text{ in}^3}$$

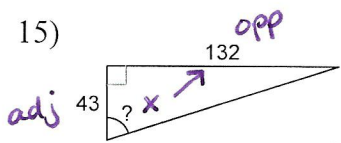
Find the area of each figure. Round your answer to the nearest tenth.

- 14) A triangle with two sides that measure 2 mi and 8 mi with an included angle of  $140^\circ$ .



$$A = \frac{1}{2} a b \sin C = \frac{1}{2} (2)(8) \sin 140 = \boxed{5.1 \text{ mi}^2}$$

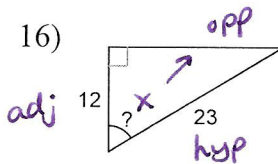
Find the measure of the indicated angle to the nearest degree.



$$\tan x = \frac{132}{43}$$

$$\tan^{-1} \left( \frac{132}{43} \right)$$

$$x \approx 71.95 \dots \boxed{72^\circ}$$

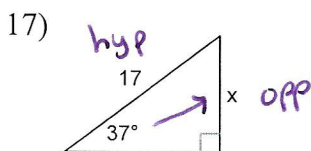


$$\cos x = \frac{12}{23}$$

$$\cos^{-1} \left( \frac{12}{23} \right)$$

$$x \approx 58.55 \dots \boxed{59^\circ}$$

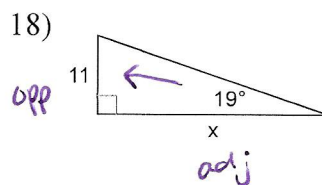
Find the missing side. Round to the nearest tenth.



$$\sin 37 = \frac{x}{17}$$

$$17 \cdot \sin 37 = x$$

$$x \approx \boxed{10.2}$$



$$\tan 19^\circ = \frac{11}{x}$$

$$x \tan 19^\circ = 11$$

$$x = \frac{11}{\tan 19^\circ} \approx \boxed{31.9}$$