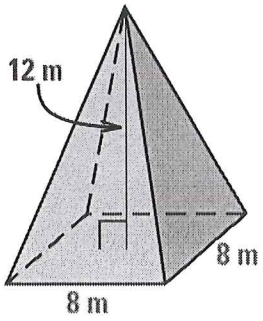
Name: Key Hour: _____

Basic Surface Area and Volume of Pyramids
Homework 2017

Find the volume and/or surface area of the solid. Round to the nearest tenth.

1.



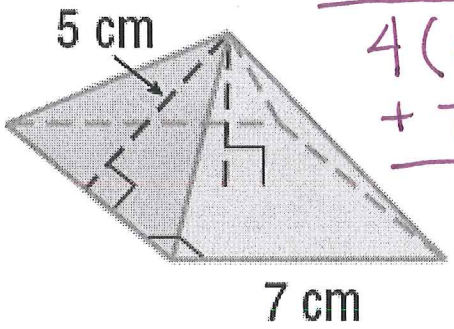
$V = \frac{1}{3} B \cdot H$

$V = \frac{1}{3}(8 \cdot 8) 12$

$V = 256$

V = $256 m^3$

2.



Surface Area

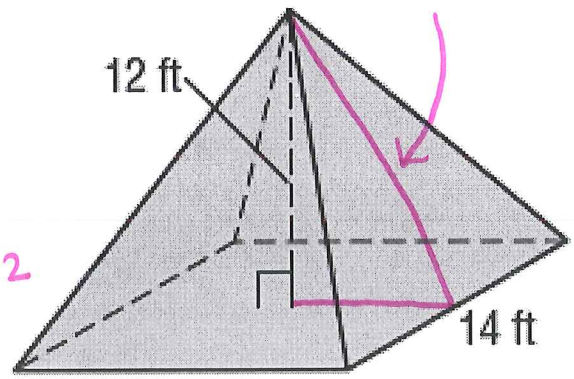
$4(\frac{1}{2} 7 \times 5)$

$+ 7 \times 7$

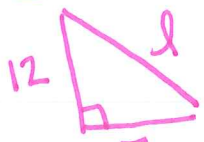
$119 cm^2$

SA= $119 cm^2$

3.



Find l



$12^2 + 7^2 = l^2$

$l = 13.9$

Surface Area

$4(\frac{1}{2} 14 \times 13.9)$

$+ 14 \times 14$

$SA = 585.2$

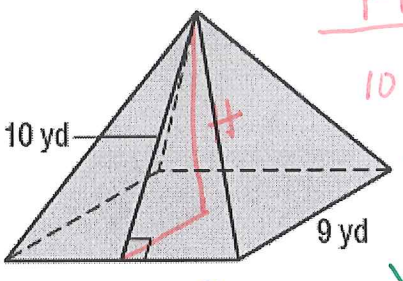
SA= $585.2 ft^2$

V = $784 ft^3$

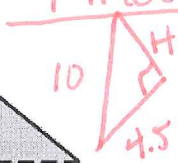
$V = \frac{1}{3}(14 \times 14) 12$

$V = 784 ft^3$

4.



Find H



$H^2+4.5^2=10^2$

$H=8.9$

SA= $261\ yd^2$

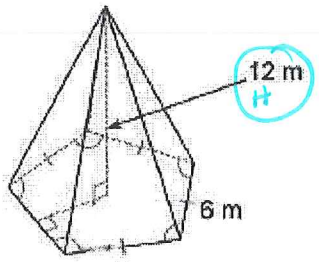
$V=\frac{1}{3}9.9\times8.9$ V= $240.3\ yd^3$

$SA=4(\frac{1}{2}9\times10)+9\times9$

$SA=261$

Directions: Find the volume. Round to the nearest tenth if needed.

5.



$\cos(54)=\frac{3}{r}$

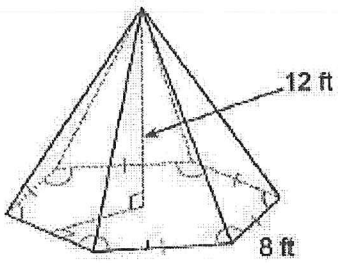
$r=5.1$

$V=\frac{1}{3}B\cdot H$

$V=\frac{1}{3}(5\frac{1}{2}5.1\times5.1\sin(72))\times12$

$V\approx247.4m^3$

6.



$\cos(60)=\frac{4}{r}$

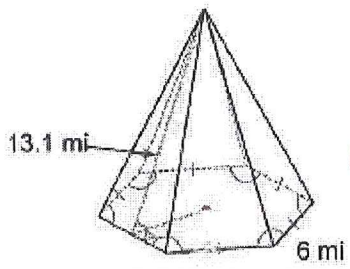
$r=8$

$V=\frac{1}{3}6\frac{1}{2}8.8\sin(60)\cdot12$

$V=665.1ft^3$

Directions: Find the surface area. Round to the nearest tenth if needed.

7.



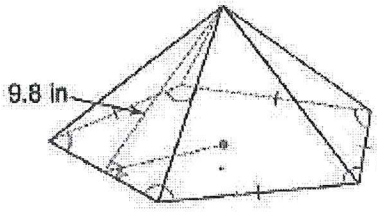
$\cos(60)=\frac{3}{r}$

$r=6$

$SA=6\frac{1}{2}6\cdot6\sin(60)+6(\frac{1}{2}6\cdot13.1)$

$SA\approx329.3mi^2$

8.



$\cos(54)=\frac{5}{r}$

$r=8.5$

$SA=5\frac{1}{2}8.5\times8.5\sin(72)+5\frac{1}{2}10\times9.8$

$SA\approx416.8in^2$