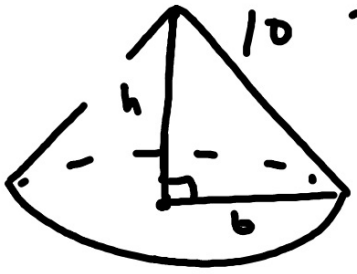
1.



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

$= \frac{1}{3}(36\pi)(\ 8\ )$

$= 301.6\ cm^3$

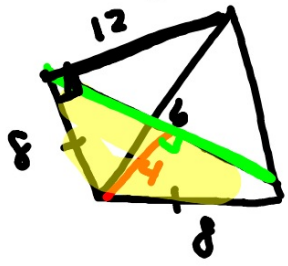
$6^2 + h^2 = 10^2$

$36 + h^2 = 100$

$h^2 = 64$

$h = 8$

3.



$V = \frac{1}{3}(27.8)\,h$

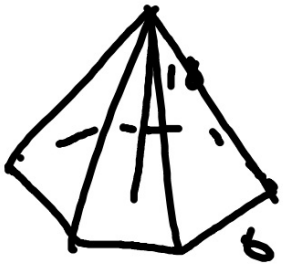
$= \frac{1}{3}(27.8)\,12$

$= 111.2\ cm^3$

$\frac{1}{2}\,6\,h$

$\frac{1}{2}(13.9)\,4$

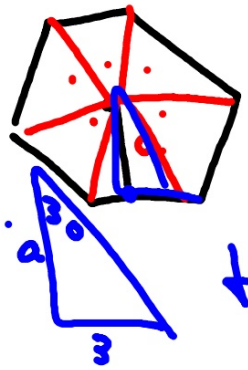
$\frac{4\sqrt{3}}{8} = \frac{?}{x} = 6.9$

4. 

$V = \frac{1}{3}(\quad)h$

$= \frac{1}{3}(93.6)18$

$= 561.6\ ft^3$

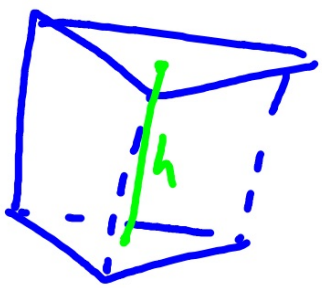


$A = \frac{1}{2}ap$

$= \frac{1}{2}(5.2)(36)$

$\tan 30 = \frac{3}{a}$ $0.5773a = 3$

6.



$V = B \cdot h$

$65 = (\quad) 5$

13

Geometry 12.5
Find volume of pyramids
Find volume of cones*

*8th grade standard

altitude
slant height
units
pyramidium
oblique

Quiz 12.3-12.4

Tues. FMC :(

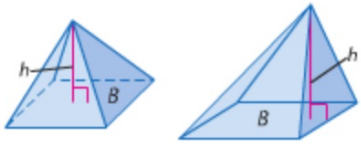
Tues. FMC :(

KeyConcept Volume of a Pyramid

Words The volume of a pyramid is $V = \frac{1}{3}Bh$, where B is the area of the base and h is the height of the pyramid.

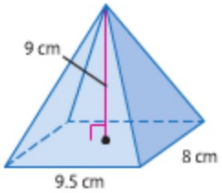
Symbols $V = \frac{1}{3}Bh$

Models



Note: both right & oblique

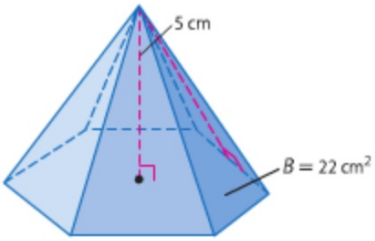
h (altitude) is floor to ceiling distance



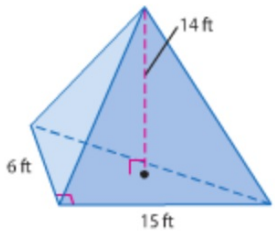
Whiteboards

GuidedPractice

1A.



1B.



right & oblique

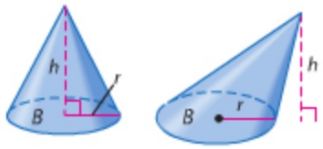
WatchOut!

Volumes of Cones

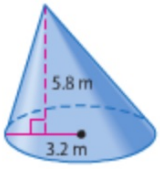
The formula for the surface area of a cone only applies to right cones. However, the formula for volume applies to oblique cones as well as right cones.

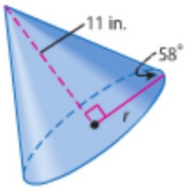
KeyConcept Volume of a Cone

Words	The volume of a circular cone is $V = \frac{1}{3}Bh$, or $V = \frac{1}{3}\pi r^2 h$, where B is the area of the base, h is the height of the cone, and r is the radius of the base.	Models
Symbols	$V = \frac{1}{3}Bh$ or $V = \frac{1}{3}\pi r^2 h$	



Both right & oblique

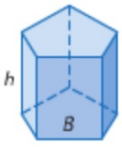
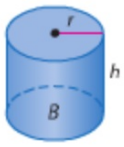
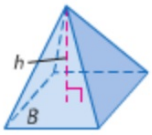
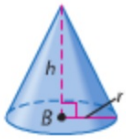

5.8 m
3.2 m


11 in.
58°
r

GuidedPractice

3. ARCHAEOLOGY A pyramidion that was discovered in Saqqara, Egypt, in 1992 has a rectangular base 53 centimeters by 37 centimeters. It is 46 centimeters high. What is the volume of this pyramidion? Round to the nearest tenth.

ConceptSummary Volumes of Solids

Solid	prism	cylinder	pyramid	cone
Model				
Volume	$V = Bh$		$V = \frac{1}{3}Bh$	