

Notes: **VOLUME OF PYRAMIDS, CONES, AND SPHERES**

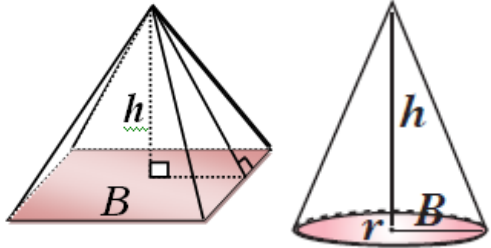
TERM	DESCRIPTION	FORMULA
VOLUME	<p>The amount of _____ enclosed in the interior of a three-dimensional object.</p> <p>For a pyramid and a cone the volume is _____ the product of the area of the _____ and the _____.</p>	

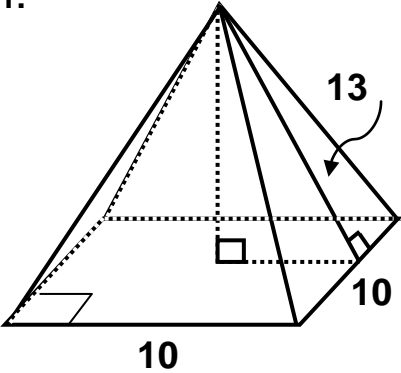
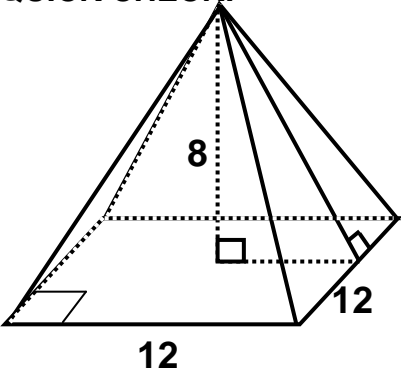
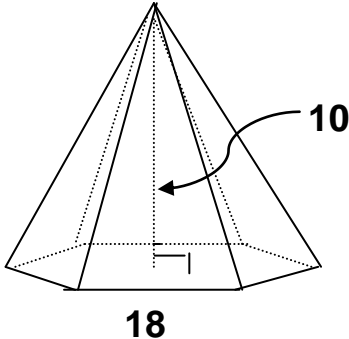
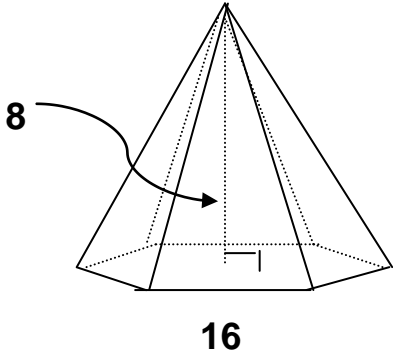
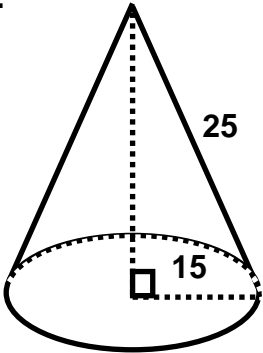
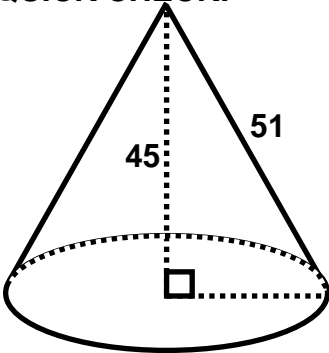
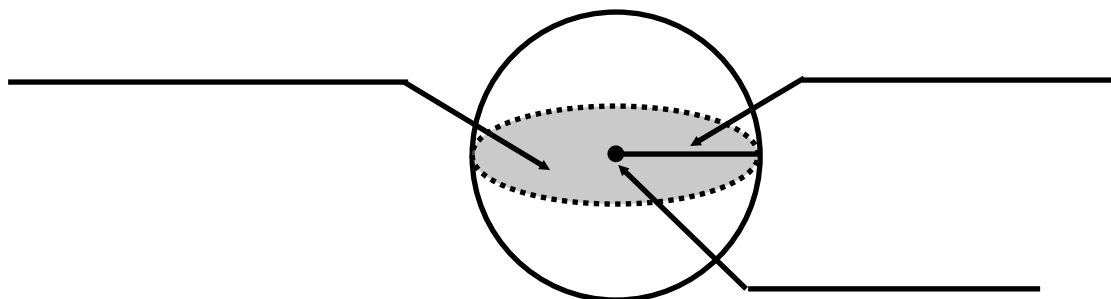
FIGURE	BASE CALCULATIONS	VOLUME
<p>1.</p> 	<p>NAME:</p> <p>B:</p>	<p>FORMULA:</p>
<p>QUICK CHECK:</p> 	<p>NAME:</p> <p>B:</p>	<p>FORMULA:</p>
<p>2.</p> 	<p>NAME:</p> <p>B:</p>	<p>FORMULA:</p>

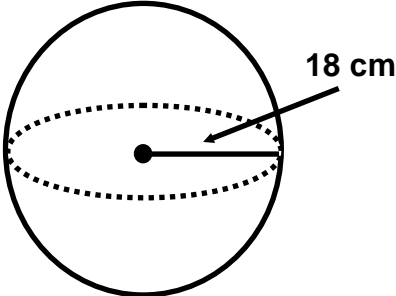
FIGURE	BASE CALCULATIONS	VOLUME
QUICK CHECK: 	NAME:	FORMULA:
	B:	
3. 	NAME:	FORMULA:
	B:	
QUICK CHECK: 	NAME:	FORMULA:
	B:	

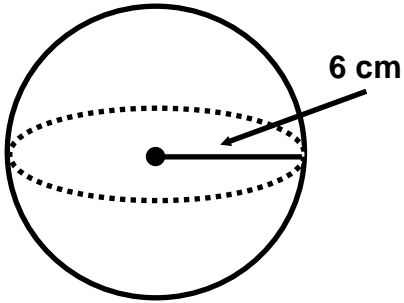
center	great circle	radius
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Using the Word Bank above, label the parts of the sphere shown below.



TERM	DEFINITION	FORMULA
	A _____ of a sphere that has the same radius and center as the sphere.	$A = \pi r^2$
	The amount of _____ on the _____ of a sphere.	$SA = 4\pi r^2$
	The amount of _____ contained in the interior of a three-dimensional object	$V = \frac{4}{3}\pi r^3$

FIGURE	SURFACE AREA	VOLUME
4. 	EXACT AREA =	EXACT VOLUME =
	APPROXIMATE AREA =	APPROXIMATE VOLUME =

QUICK CHECK: 	EXACT AREA =	EXACT VOLUME =
	APPROXIMATE AREA =	APPROXIMATE VOLUME =

EXAMPLE 5:

If a sphere has a volume of $\frac{4000\pi}{3}$ cubic units what is its surface area?

Exact SA = _____

QUICK CHECK:

If a sphere has a volume of $\frac{32\pi}{3}$ cubic units what is its surface area?

Exact SA = _____

EXAMPLE 6:

If a sphere has a surface area of 100π square units find its volume,

Exact V = _____

QUICK CHECK:

If a sphere has a surface area of 36π square units, find its volume.

Exact V = _____