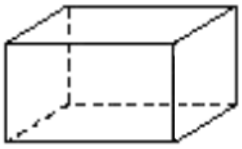
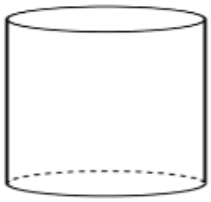
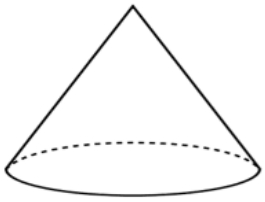
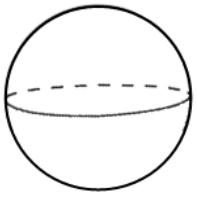
April/May 2016: 3D Unit

Sun	Mon.	Tue.	Wed./Thurs.		Fri.	Sat.
17	**18**	**19**	**20**	**21**	**22**	**23**
	Vocabulary of 3D Figures **3D Weekly #1 Due 4/25**	Surface Area and Volume of Prisms and Pyramids **HWK #1 Prisms and Pyramids Due 4/25**	**House Project**		**DUE DATE FOR SIGNING UP TO RETAKE AREA EXAM* Review Prisms and Pyramids	
24	**25**	**26**	**27**	**28**	**29**	**30**
	QUIZ Pyramids and Prisms **Weekly DUE!** **HWK #1 Due!** Surface Area of Cones and Cylinders **3D Weekly #2 Due 5/2**	Volume of Cylinders and Cones **HWK #2: Cylinders and Cones Due 4/27-4/28**	**QUIZ Cylinders and Cones** **HWK #2 Due!** Surface Area and Volume of Spheres		**QUIZ Spheres** Working Backwards to find Missing Dimensions **HWK #3: Working Backwards Due 5/2**	
1	**2**	**3**	**4**	**5**	**6**	**7**
	QUIZ Working Backwards **HWK #3 Due!** **Weekly DUE!** Composite Figures	Review Quiz Retakes	**3D Test** Final Review Packet Given		**Name Project**	
8	**9**	**10**	**11**	**12**	**13**	**14**
	Name Project	**Name Project**	ACT Practice Exam	ACT Practice Exam	Review for Finals	
15	**16** Review for Finals	**17** Finals Hours 2, 4, & 6	**18** Finals; 1 & 3	**19** Finals; 5 & 7	**20** **No School!! Summer Vacation Begins ☺**	**21**

Geometry – 3D Formulas

Name	Sketch	Surface Area (units^2)	Volume (units^3)
Prism			
Pyramid			
Cylinder			
Cone			
Sphere			

GEOMETRY Unit 10 3D Figures Name: _____Hour: __

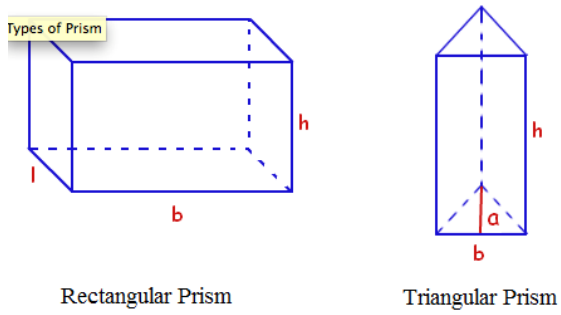
Parts of 3D Figures:

Face: Edge: Vertex:

Bases: Cross Section: Net:

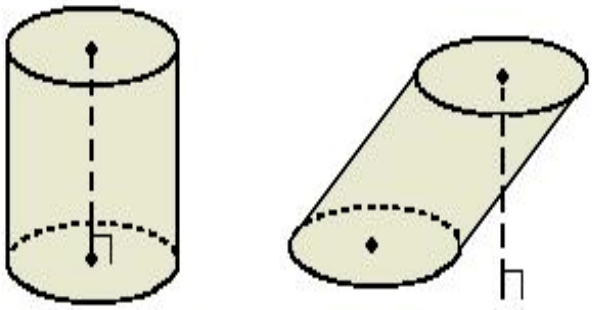
Types of 3D Figures:

Prism

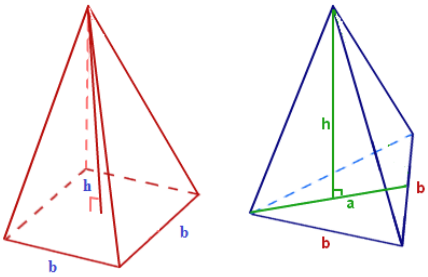


Rectangular Prism Triangular Prism

Cylinder

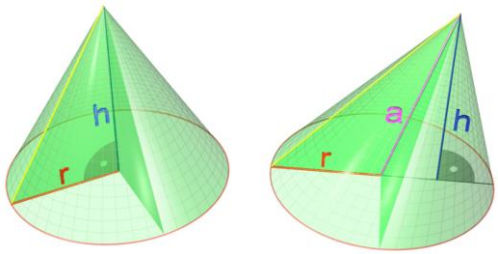


Pyramid



Square Pyramid Triangular Pyramid

Cone

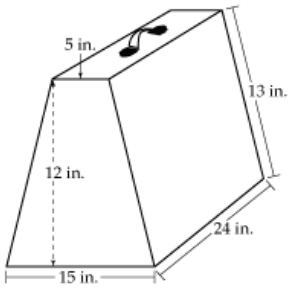


PRISMS AND PYRAMIDS

Example 1: Find the surface area of a right triangular prism with height 20 cm and base edges of 3cm, 4cm and 5cm. Round to the nearest tenth, if necessary.

Example 2: Find the volume of a rectangular pyramid with base length 14 cm, width 18 cm, slant height 25 cm, and altitude of 10 cm. Round to the nearest tenth, if necessary.

Example 3: Find the surface area and volume of the following:



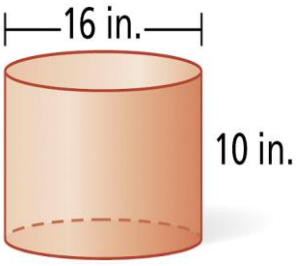
Suitcase A

Example 3: Find the lateral area of an equilateral triangular pyramid with base edges of 3, slant height of 7, and a height of 12.

Example 4: Find the surface area of a rectangular pyramid with base length 14 cm, width 18 cm, slant height 25 cm, and altitude of 10 cm. Round to the nearest tenth, if necessary.

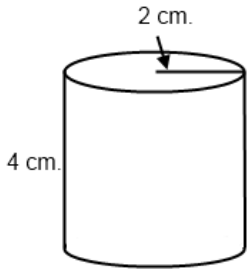
CYLINDERS AND CONES

Example 1: Find the surface area and volume of the cylinder.



Example 2: Find the lateral area of a right cone with diameter 9 cm and altitude of 6 cm.

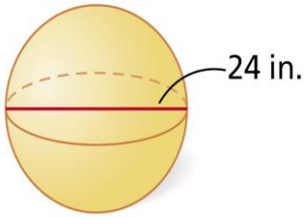
Example 3: Find the lateral area of the cylinder. Give your answers in terms of π.



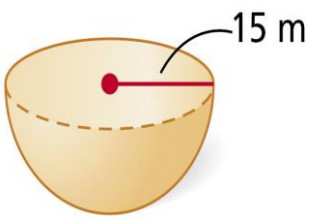
Example 4: Find the lateral area of a right cone with diameter 9 cm and altitude of 6 cm.

SPHERES

Example 1: Find the surface area of the sphere. Give your answer in terms of π.



Example 2: Find the volume and surface area of the hemisphere



WORKING BACKWARDS

1. A can of soup has a radius of 3.4 cm. If the surface area of the can is 286.3 cm^2, what is the height of the can?

2. A right rectangular prism has a surface area of 1020 in^2, a length of 6 inches and a width of 9 inches. Find the height.

3. The surface area of a square pyramid is 24 mm^2 and the base area is 4 mm^2. What is the slant height of the pyramid?

4. The surface area of a cone is 18π in^2 and the radius of the base is 3 inches. What is the slant height of the cone?

5. A cylindrical can has a volume of 363 cm^3. The diameter of the can is 9 cm, what is the height?

6. Given the surface area of a sphere is 16π cm^2, find the volume.