

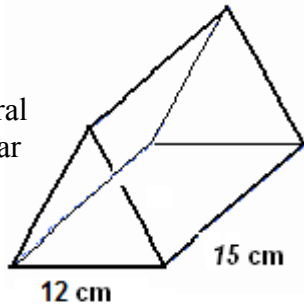
Advanced Geometry: Unit 7 Review Jeopardy

Nets (Draw a net for a ...)

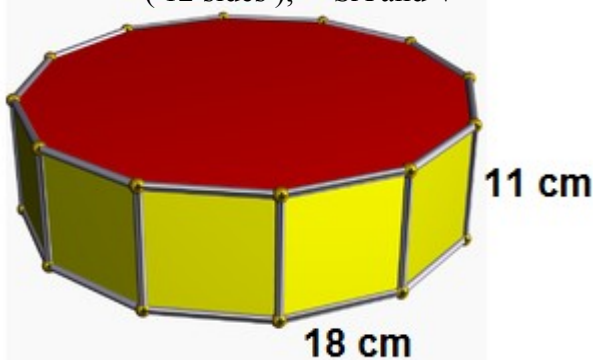
- 4.) Cone
- 5.) Cylinder
- 6.) Rectangular Pyramid

Prisms

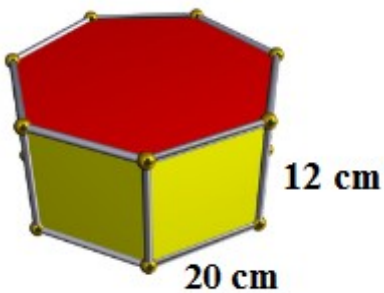
- 4.) Equilateral Triangular Prism



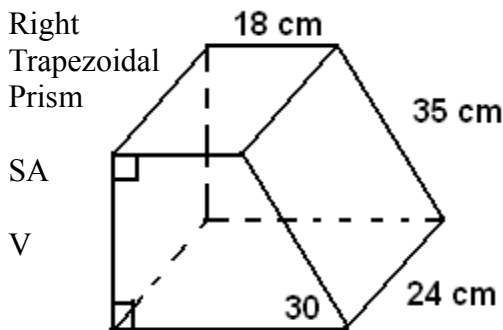
- 5.) Regular Dodecagon Prism (12 sides); SA and V



- 6.) Regular Heptagon Prism (7 sides); SA and V

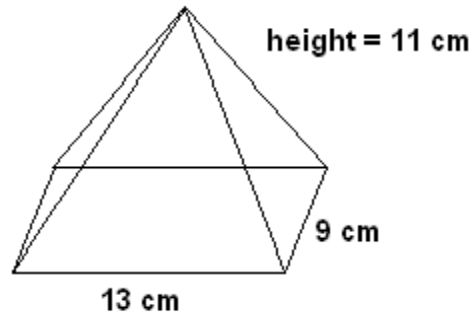


- 7.) Right Trapezoidal Prism



Pyramids

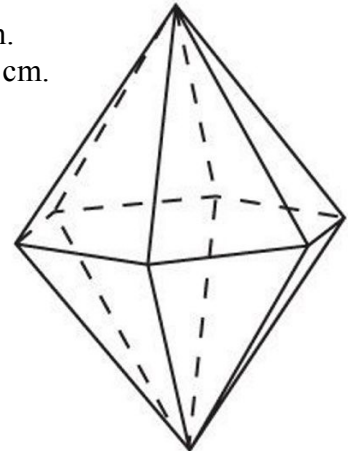
- 4.) Right Rectangular Pyramid; SA and V



- 5.) “Diamond” formed by two right regular hexagon pyramids.

Side Length = 15 cm.
Overall Height = 40 cm.

SA and V

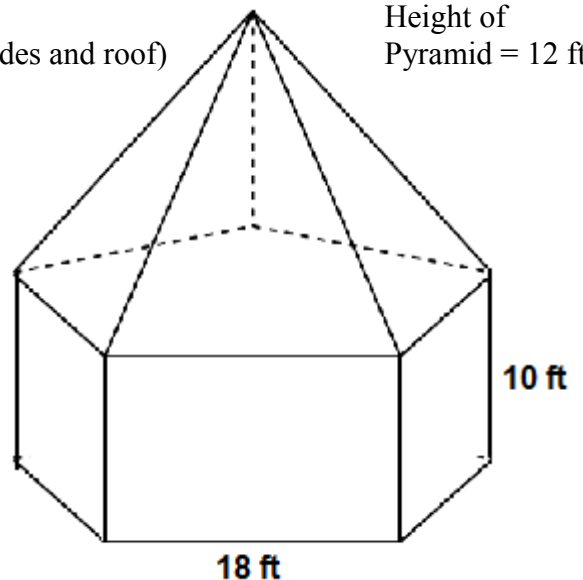


- 6.) The building below:

A right regular pentagon pyramid topping a regular pentagon prism.

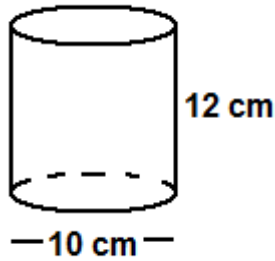
SA (sides and roof) Height of Pyramid = 12 ft

V

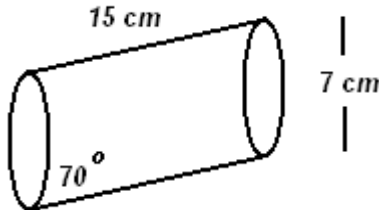


Cylinders

- 4.) SA and V



- 5.) Volume only.

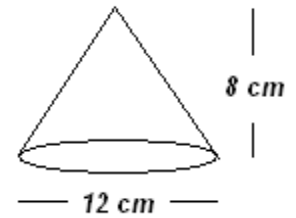


- 6.) Find the SA and V involving a roll of paper towel with overall diameter: 10 cm, diameter of inside: 4 cm, height: 25 cm.

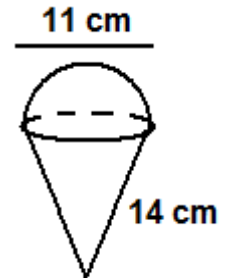


Cones

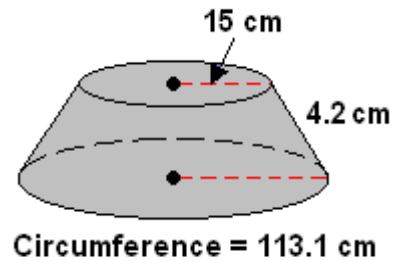
- 4.) Right Cone; SA and V



- 5.) Hemisphere topping a right cone. SA and V.



- 8.) Find the SA and V of the frustrum pictured below (a right cone with its top removed parallel to its base.)

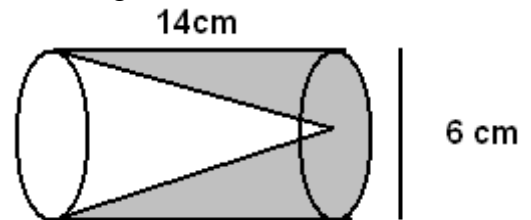


Spheres

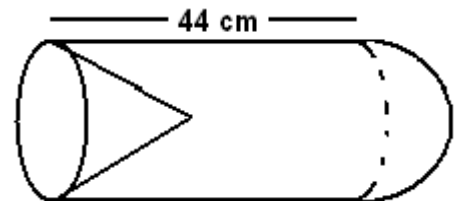
- 4.) A meatball has a diameter of 5 cm. If ground meat is 0.95 grams per cubic centimeter and 1 pound is 453.59 grams, how many pounds of meat would you need to make 50 meatballs?
- 5.) Three marbles are placed snug against each other in a box. Find the percentage of volume inside the box not occupied by the marbles given that the diameter of a marble is 5 cm.
- 8.) A large, deep saucepan (diameter 18") has spaghetti sauce 2" from the top. What is the maximum number of 2.8" diameter meatballs that can be added to the pot before it spills over?

Composite (Blend)

- 6.) Solid right cylinder of wood with a right cone cut out. SA and V.



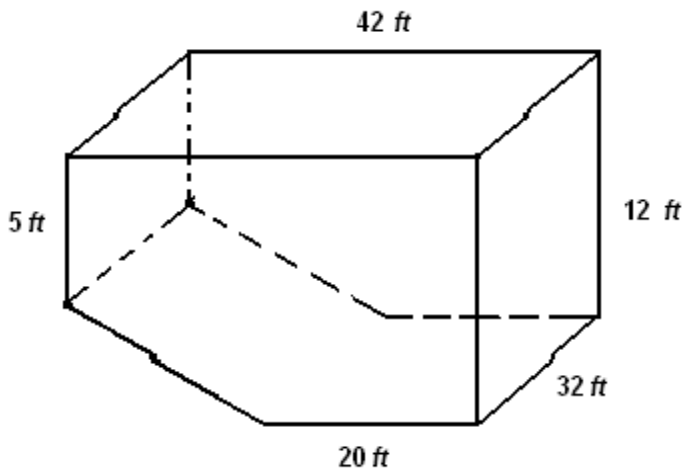
- 8.) A solid right cylinder of wood with a Right cone tunneled out and a hemisphere attached on the right.



diameter of cylinder = 18 cm
 volume of right cone = 950 cubic cm
 hemisphere attached on the right

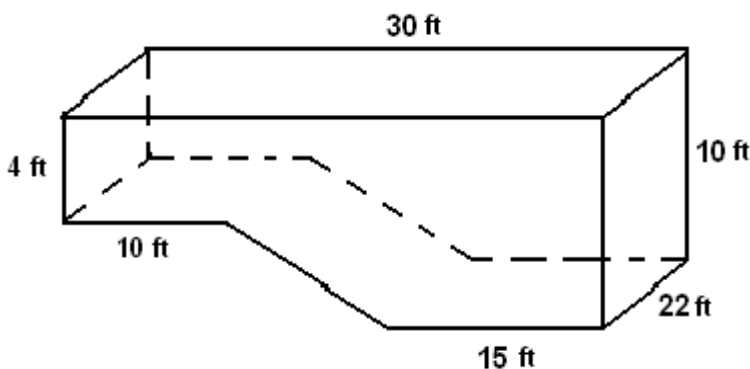
Pools

- 5.) (A) Find the volume of the pool below (in cubic feet). All sides are rectangles or right triangles.
- (B) If there are **7.481 gallons of water per cubic foot of water**, and **2 hoses pumping water at 45 gallons per minute each** begin pumping water into the empty pool at 2:20 AM Monday, what day and time would the pool be full (to the nearest second)?



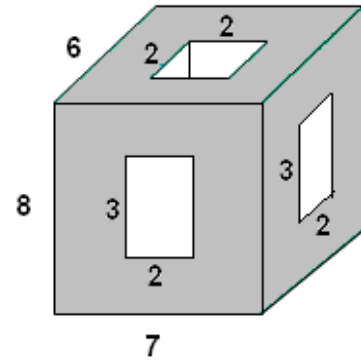
- 10.) 3 Hoses (that pour water at the rate of 50 gallons per minute each) are filling the empty pool with water. They start running at 1:45 PM, but they are accidentally shut off at 4:07 PM. How deep is the water in the deep end of the pool at this instant?

7.481 gallons of water is one cubic foot of water.



“Fun”

- 6.) All rectangular faces on the right prism. Find the SA.



- 8.) Find the volume of water in the pipe.

diameter = 8 feet
water depth = 6.5 feet



- 10.) A giant Frosty the Snowman is made of three spheres of snow. The bottom sphere is 75 feet in diameter, the middle is 55 feet in diameter, and the top is 35 feet in diameter. As frosty melts, the ground drains into an underground conical tank (radius is 8 feet at the biggest point). If ten linear feet of snow translates to one linear foot of water, how deep must the cone be to hold Frosty's liquefied remains?