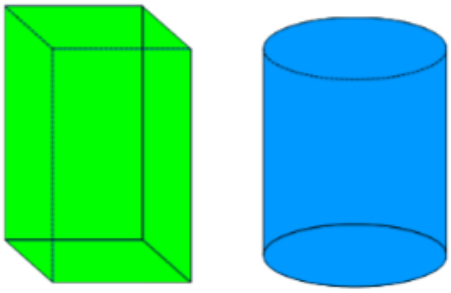
Geometry CC – Mr. Valentino
Unit 11 Day 5: Volume of Pyramids and Cones

Name: _____
Date: _____ Per: _____

Aim: How can we find the volume of pyramids and cones?

Do Now:

1) Why is the formula for the volume of a prism similar to the formula for the volume of a cylinder?



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Why is a cylinder not a prism?

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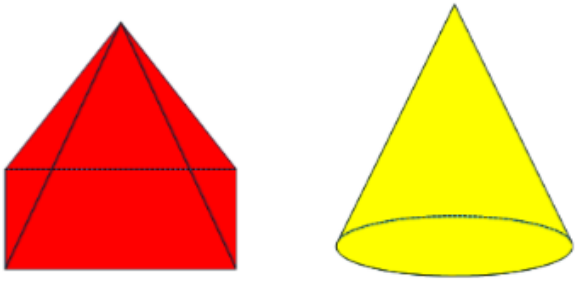
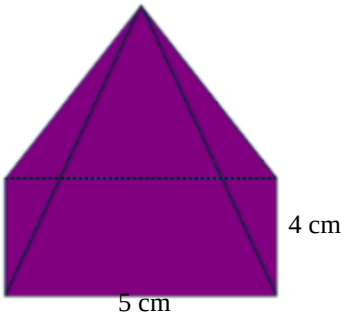
2) How do the formulas for the pyramid and cone compare to the formulas of the prism and cylinder?

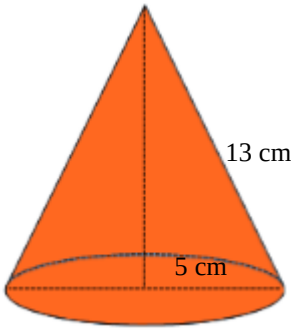


Find the volume of each solid (round to 2 decimal places if necessary).

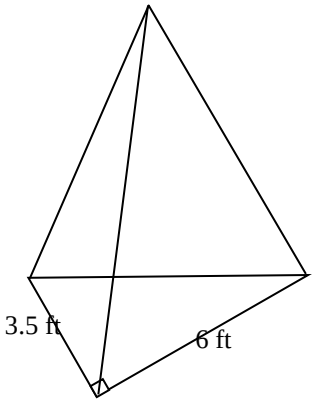
3) The height is 7 cm.



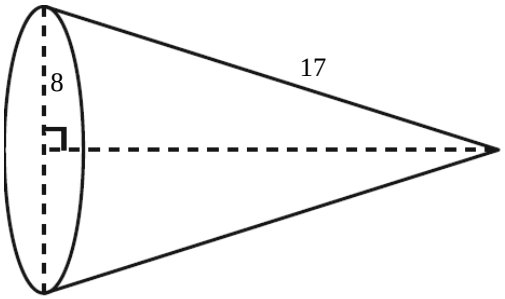
4)



5) The height is 10 ft.



6)



7) What is the volume of a rectangular pyramid whose base has a length of 6.3 cm, a width of 7.4 cm, and whose height is 9.5 cm?

8) What is the volume of a square pyramid whose base has a side length of 13 feet, and whose height is 8 feet?

9) What is the volume of a right circular cone whose height is 15 feet, and whose base has a radius of 6 feet?

10) What is the volume of a right circular cone whose height is 20 feet, and whose base has a diameter of 14 feet?

11) If the volume of a pyramid is 342 cm^3, and if the height of the pyramid is 6 units, what is the area of the base?

12) If the volume of a right circular cone is 192π in^3, and if its height is 9 in, what is the radius of the base?

13) If the volume of a right circular cone is 96π in^3, and if its height is 8 in, what is the radius of the base?

14) If the volume of a right circular cone is 1,000 in^3, and if its radius is 6 in, what is the height in terms of pi?