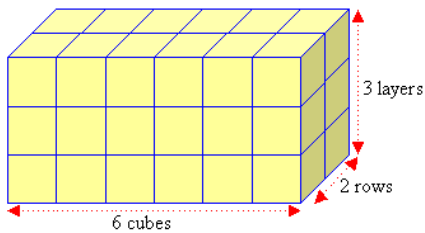# Volume of Prisms and Pyramids

1. How would you describe what volume is?

2. Think of a situation where knowing volume would be helpful and describe it.

How do you find the volume of a rectangular prism?

Find the volume of the following:

Show your work here.

3 layers

2 rows

6 cubes

V = _____

3. What is the volume of the box that holds the XBOX 360?
   Length = 23 inches   Show your work here:
   Width = 8 inches
   Height = 18 inches
   Base = _____

   V = _____

18 in

8 in   23 in
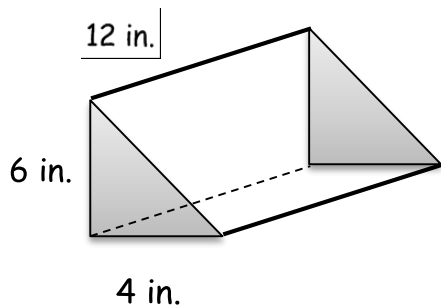
4. The bases of a triangular prism are congruent. Looking at the triangular prism given, how many of the triangles would it take to fill the prism if each triangle were an inch thick?

What information do we need to find the volume of this triangular prism?

12 in.

6 in.

4 in.

B = _____ h = _____   V = _____

Pyramid and Prisms: Related?

Make a guess as to how many pyramids full of rice it will take to fill a prism with the same base and height: _____

How are a prism and a pyramid with a congruent bases and the same height related?

How do you find the volume of a pyramid?

5. Find the volume of the Great Pyramid at Giza with a square base with side length of 230 meters and a vertical height of 147 meters?
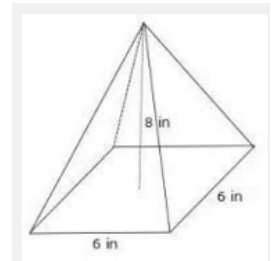
B = _____   h = _____

147 m

230 m

V = _____
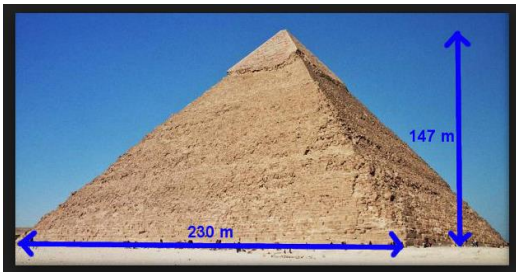
6. What is the volume of this square based pyramid?

B = _____   h = _____

8 in

6 in

6 in

V = _____

7. What is the volume of this triangular based pyramid?
   B = _____   h = _____

11 m

6.4 m

8.1 m

V = _____
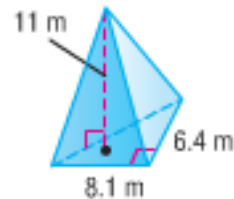
The three formulas I need to know are:

Volume of a rectangular prism	V =
Volume of a triangular prism	V =
Volume of a pyramid	V =