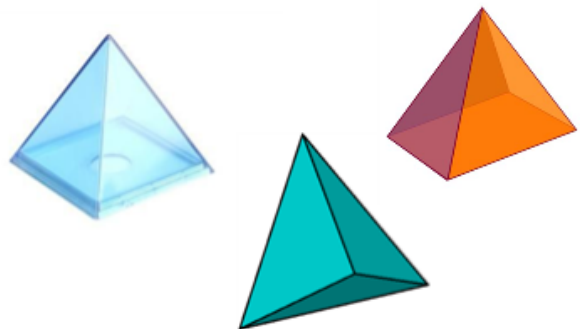


## 5.7 Volume of a Pyramid



### What is a pyramid?

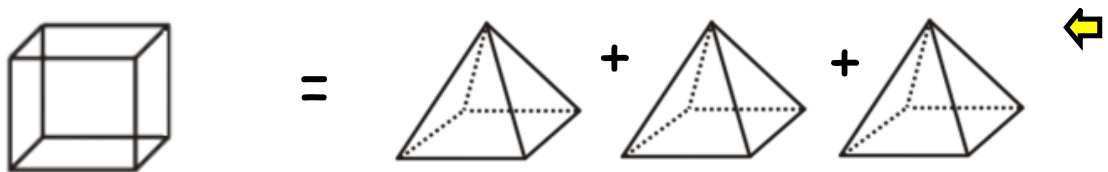


- A solid 3D shape.
- The base can be any straight-sided shape.
- The sides will all be triangles.
- The sides meet at the top (the apex).

## 5.7 Volume of a Pyramid

How many pyramids fit in a rectangular prism having the **same** base size and height?

(Demonstration 3D solids and water).



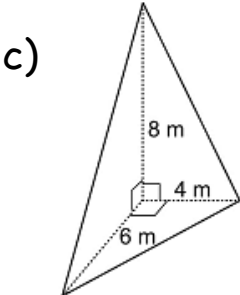
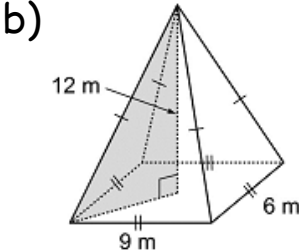
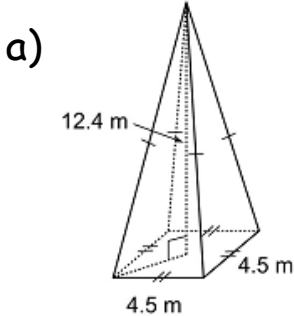
Volume of a square-based prism

⇒  $V = \text{Area of Base} \times \text{Height}$

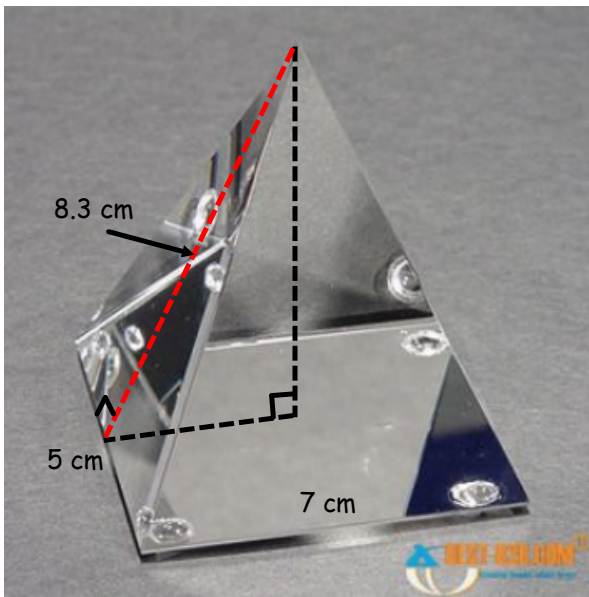
Volume of a square-based pyramid

⇒  $V = \frac{1}{3} \times \text{Area of Base} \times \text{Height}$

Ex. 1: Find the volume of each pyramid.



Ex. 2: Example, page 28.



A crystal paperweight is a pyramid with dimensions as shown.

a) What is the height of the pyramid?

b) What is the volume of crystal in the pyramid?

Hmwk: p 26 # 1, 2c, 3b, 7

