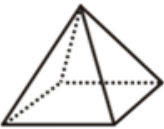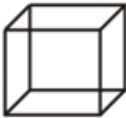| Term: **Pyramid**	Visual Representation:
Definition: A solid object where: • The base is a polygon (a straight-sided flat shape) • The sides are triangles which meet at the top (the apex).	Association:

1.1.1: Investigation - Comparing Volumes

Purpose
Compare volumes of shapes that have the same base and height.

Hypothesis
I think that...
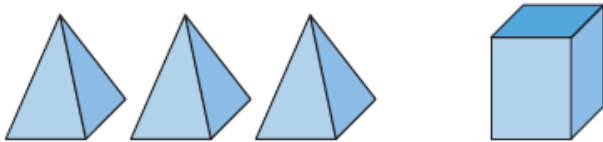
1.	x _____ =	
2.	x _____ =	

Investigate

How many times will the volume of the shape on the left fill the shape on the right?

1. $V_{\text{square pyramid}} \times$ _____ $= V_{\text{square prism}}$

2. $V_{\text{triangular pyramid}} \times$ _____ $= V_{\text{triangular prism}}$

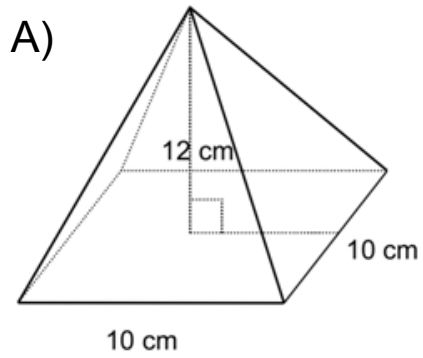**Conclusion**

The contents of three pyramids fit exactly into the prism.
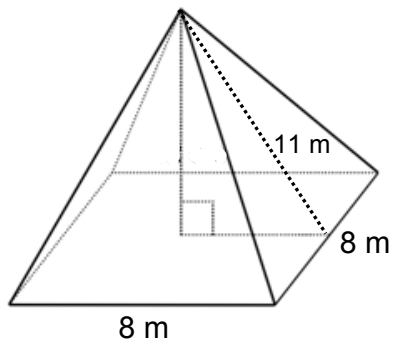These 3 volumes together…   …are equal to this volume.

V_{pyramid} = area of base x height/3

Example 1) Calculate the volume of the following pyramid. Show your work.

A)

12 cm

10 cm

10 cm

Example 2) Calculate the volume of the following pyramid.
Show your work.

11 m

8 m

8 m

1. The prism and pyramid have the same base and height.
   Determine each volume.

8 cm
3 cm
9 cm