MTH1W

Volume

Volume is how much space a three-dimensional shape takes up.

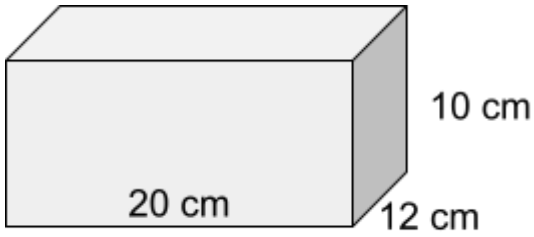
- If you filled the shape with water, how much water would be required?
- If you submerged it in a bathful full to the brim with water, how much water would be displaced?

Length is simply a line that connects two points.
If that length is spread *horizontally*, it covers some **area**.
If that area is spread *vertically*, it fills up some **volume**.

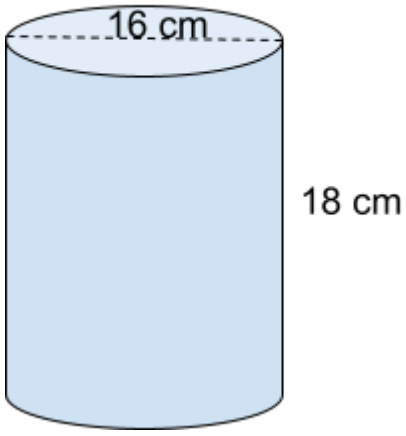
length		one dimension
area		two dimensions
volume		three dimensions

Use the EQAO formula sheet to find the volume of these shapes.

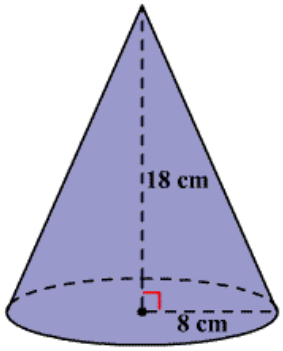
1.



2.

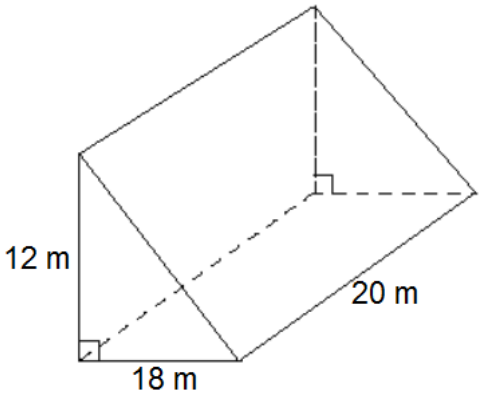


3.

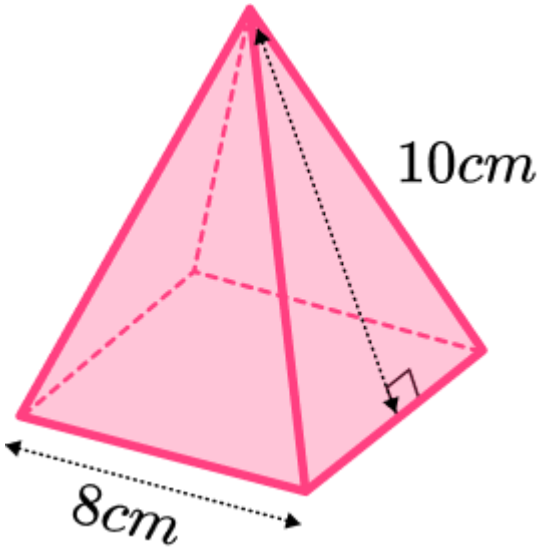


4. How does the volume of the *cone* above, compare to the volume of the *cylinder* above it?

5.



6. Calculate the volume of this square-based pyramid.
Be careful: You don't know the height yet!



7. What volume of box (rectangular prism) would you need to hold the pyramid from Question 6?

8. How does the volume of the pyramid (Question 6) compare to the volume of the box (Question 7)?