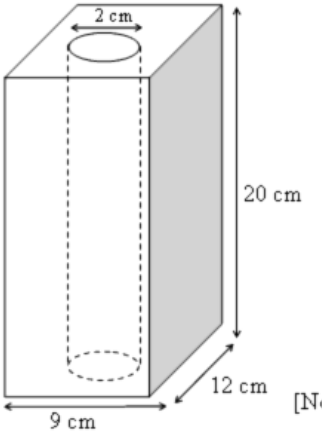
Hole in a prism

This task is about calculating volumes of composite shapes.



[Not drawn to scale]

Useful equations:

Volume of prism = area of base × height

Volume of cylinder = area of base × height

Area of circle = $\pi \times \text{radius}^2$

Area of rectangle = length × width

a) Show how to work out the volume of this wooden prism before a cylindrical hole is bored through it.

Volume of wood in whole prism_____ cm^3

b) Show how to work out the volume of wood remaining in the prism after a cylindrical hole has been bored through it.

Volume of wood left _____ cm^3

Published on https://newzealandcurriculum.tahurangi.education.govt.nz