Hole in a prism

This task is about calculating volumes of composite shapes.

Useful equations:
Volume of prism = area of base × height
Volume of cylinder = area of base × height
Area of circle = π × radius²
Area of rectangle = length × width

20 cm

2 cm

12 cm

9 cm

[Not drawn to scale]
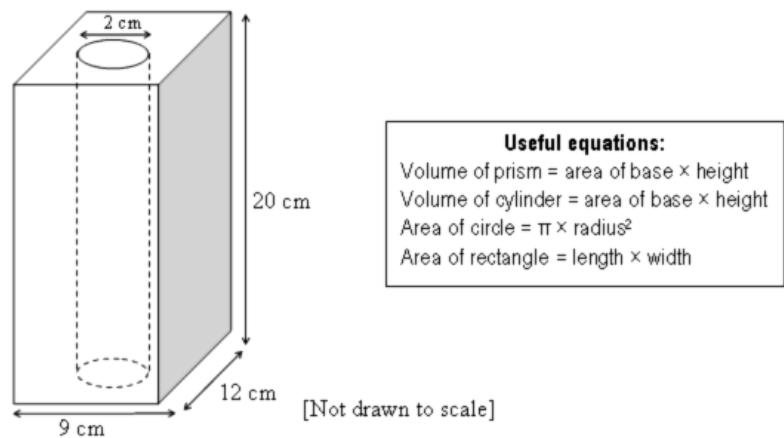
a) Show how to work out the volume of this wooden prism before a cylindrical hole is bored through it.

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