



## Volume (Rectangular Prisms)

### Finding the Volume

The volume of a 3D object is how much space it takes up.  
It can be found through volume formulas.

When measuring area, we use **cubic units**.  
Cubic units measure the space inside a 3D shape.

#### Volume of a Rectangular Prism

$$V = l \times w \times h$$

**EXAMPLE:**  $A = 4\text{m} \times 3\text{m} \times 2.5\text{m} = 30\text{m}^3$

There are 30 (1m by 1m by 1m) squares inside.



$l = 4\text{m}$   
 $w = 3\text{m}$   
 $h = 2.5\text{m}$

**Instructions:** Find the volume of the rectangular prisms below (round to two decimals).

1



$l = 6.2\text{m}$   
 $w = 4.97\text{m}$   
 $h = 5.6\text{m}$

2



$l = 3.3\text{km}$   
 $w = 2.9\text{km}$   
 $h = 1.05\text{km}$



3



$l = 41.9\text{mm}$   
 $w = 38.8\text{mm}$   
 $h = 25.24\text{mm}$

4



$l = 55.28\text{m}$   
 $w = 49.7\text{m}$   
 $h = 42.5\text{m}$

5



$l = 41.22\text{km}$   
 $w = 23.4\text{km}$   
 $h = 20.9\text{km}$

6



$l = 34.1\text{m}$   
 $w = 32.09\text{m}$   
 $h = 27.7\text{m}$

7



$l = 45.1\text{cm}$   
 $w = 38.6\text{cm}$   
 $h = 34.32\text{cm}$



## Volume (Rectangular Prisms)

### Finding the Volume

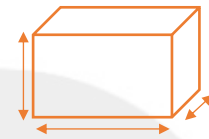
The volume of a 3D object is how much space it takes up.  
It can be found through volume formulas.

When measuring area, we use **cubic units**.  
Cubic units measure the space inside a 3D shape.

### Volume of a Rectangular Prism

$$V = l \times w \times h$$

**EXAMPLE:**  $A = 4\text{m} \times 3\text{m} \times 2.5\text{m} = 30\text{m}^3$   
There are 30 (1m by 1m by 1m) squares inside.



$l = 4\text{m}$   
 $w = 3\text{m}$   
 $h = 2.5\text{m}$

**Instructions:** Find the volume of the rectangular prisms below (round to two decimals).

1



$l = 3.98\text{m}$   
 $w = 3.21\text{m}$   
 $h = 2.54\text{m}$

2



$l = 4.13\text{mm}$   
 $w = 4.003\text{mm}$   
 $h = 2.83\text{mm}$



3



$$\begin{aligned}l &= 88.5\text{mm} \\w &= 32.01\text{mm} \\h &= 22.4\text{mm}\end{aligned}$$

4



$$\begin{aligned}l &= 4.41\text{m} \\w &= 3.37\text{m} \\h &= 3.15\text{m}\end{aligned}$$

5



$$\begin{aligned}l &= 62.7\text{km} \\w &= 61.4\text{km} \\h &= 47.7\text{km}\end{aligned}$$

6



$$\begin{aligned}l &= 78.2\text{cm} \\w &= 65.2\text{cm} \\h &= 54.81\text{cm}\end{aligned}$$

7



$$\begin{aligned}l &= 4.098\text{mm} \\w &= 3.67\text{mm} \\h &= 3.51\text{mm}\end{aligned}$$