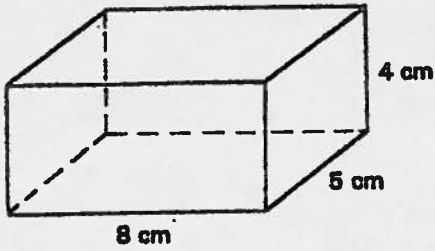


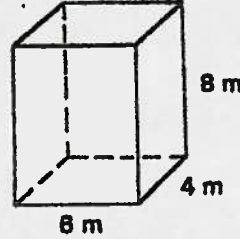
Measurement — Volume

To determine the *volume measure* (V) of a rectangular solid, find the product of the measure of its *length* (l), the measure of its *width* (w), and the measure of its *height* (h).

47



$$\begin{aligned}
 V &= l \times w \times h \\
 &= 8 \times 5 \times 4 \\
 &= 40 \times 4 \\
 &= 160
 \end{aligned}$$



$$\begin{aligned}
 V &= l \times w \times h \\
 &= 6 \times 4 \times 8 \\
 &= \underline{\hspace{2cm}} \times 8 \\
 &= \underline{\hspace{2cm}}
 \end{aligned}$$

The volume is 160 cubic centimetres (cm^3) | The volume is cubic metres (m^3)

Find the volume of each rectangular solid below.

	a	b	c
1.			
	<u> </u> cm^3	<u> </u> m^3	<u> </u> m^3
2.			
	<u> </u> dm^3	<u> </u> cm^3	<u> </u> m^3

Find the volume of each rectangular solid described below.

	<i>length</i>	<i>width</i>	<i>height</i>	<i>volume</i>
3.	8 m	3 m	4 m	<u> </u> m^3
4.	4 m	3 m	3 m	<u> </u> m^3
5.	10 cm	9 cm	8 cm	<u> </u> cm^3
6.	9 m	7 m	6 m	<u> </u> m^3
7.	10 cm	7 cm	9 cm	<u> </u> cm^3

Check your answers. Record your score.

My score: 23

Solve each problem.

1. A rectangular-shaped swimming pool is 15 metres long and 10 metres wide. The pool is 3 metres deep. How many cubic metres of water will the pool hold?

It will hold _____ cubic metres of water.

2. A box is shaped like a rectangular solid. Its length is 24 centimetres, its width is 8 centimetres, and its height is 13 centimetres. What is the volume of the box?

The volume is _____ cubic centimetres.

3. A school room is 3 metres long, 8 metres wide, and 3 metres high. What is the volume of the room?

The volume is _____ cubic metres.

4. In building a basement a hole 3 metres long, 8 metres wide, and 2 metres deep was dug. How many cubic metres of earth were removed?

_____ cubic metres of earth were removed.

5. A cigar box is 16 centimetres long, 9 centimetres wide, and 5 centimetres deep. What is the volume of the box?

The volume is _____ cubic centimetres.

6. A trench is to be 60 metres long, 2 metres wide, and 2 metres deep. How much earth must be removed?

_____ cubic metres of earth must be removed.

7. A box car is 15 metres long, 3 metres wide, and 2 metres high. What is the volume of the box car?

The volume is _____ cubic metres.

8. A glass case is 68 centimetres long, 29 centimetres wide, and 99 centimetres high. What is the volume of the case?

The volume is _____ cubic centimetres.

Check your answers. Record your score.

My score: _____

1. $V =$
=
=

2. $V =$
=
=

3. $V =$
=
=

4. $V =$
=
=

5. $V =$
=
=

6. $V =$
=
=

7. $V =$
=
=

8. $V =$
=
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