10-7 Volume of Rectangular Prisms

5-22-18 Pg. 572

May 17-8:06 AM

Volume is the number of cubic units needed to fill a space.

You find the volume of a rectangular prism by multiplying:

LENGTH TIMES WIDTH TIMES HEIGHT!

OR *lwh*

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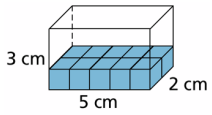
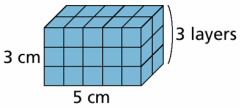
It takes 10, or 5 · 2, centimeter cubes to cover the bottom layer of this rectangular prism.



There are 3 layers of 10 cubes each to fill the prism. It takes 30, or 5 · 2 · 3, cubes.



Volume is expressed in cubic units, so the volume of the prism is 5 cm · 2 cm · 3 cm = 30 cm^3.

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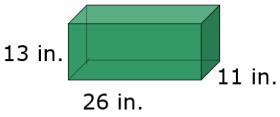
Find the volume of the rectangular prism.



$V = lwh$ *Write the formula.*

$V = 26 \cdot 11 \cdot 13$ *l = 26; w = 11; h = 13*

$V = 3{,}718\ in^3$ *Multiply.*

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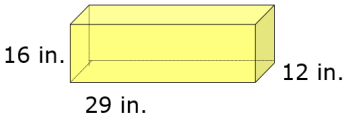
Find the volume of the rectangular prism.



$l = 29, w = 12, h = 16$

$V = 29 \cdot 12 \cdot 16$

$V = 5{,}568\ units^3$

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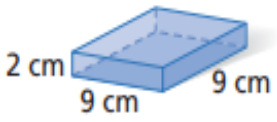
Find the Volume:



$l = 9$ $w = 9$ $h = 2$

$V = 9 \cdot 9 \cdot 2$

$V = 162\ cm^3$

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