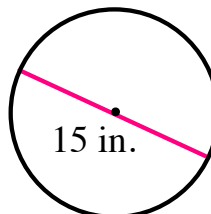
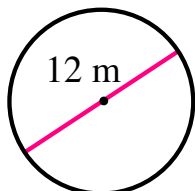


Skills You'll Need

How is π related to the circumference and the diameter of a circle?

Find the area of each circle. Round to the nearest square unit.



7th Grade

Lesson 7-3: Volumes of Prisms & Cylinders

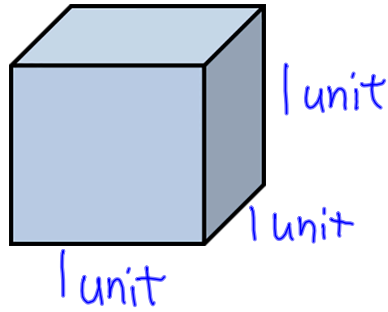
Learning Goal:

- I can find the volumes of prisms and cylinders.

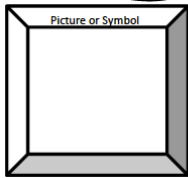
What I Know:

What I Learned:

Cubic Unit



Vocabulary Word
cubic unit



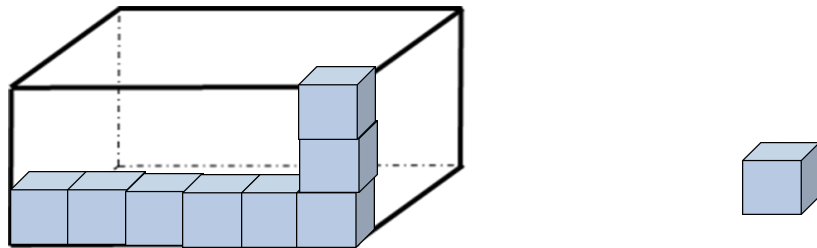
Example

Non-Example

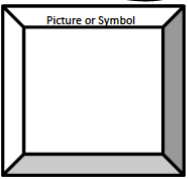
Definition: **a cube with edges one unit long**

Sentence:

Volume



Vocabulary Word
volume



Example

Non-Example

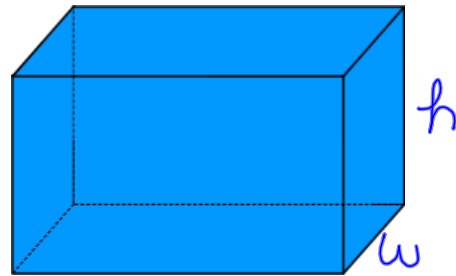
Definition: **the number of cubic units needed to fill the space inside a three-dimensional figure**

Sentence:

Volume of a Rectangular Prism

$V = \text{area of base} \times \text{height}$

$$V = Bh$$



$$B = lw$$

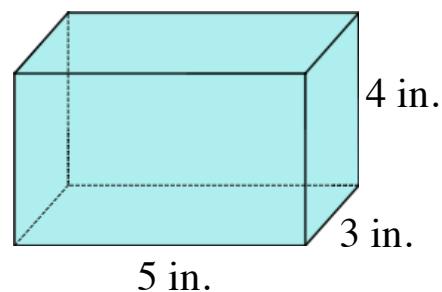
Mr. Cho is building a craft box like the one shown below. What is the volume of the craft box in cubic inches?

$$V = Bh$$

$$B = (5)(3) = 15 \text{ in}^2$$

$$V = (15 \text{ in}^2)(4 \text{ in})$$

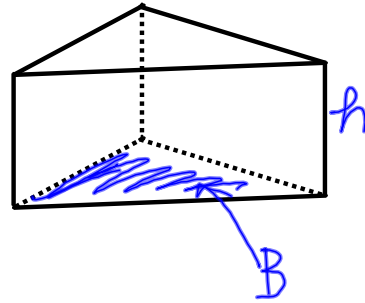
$$V = 60 \text{ in}^3$$



Volume of a Triangular Prism

$$V = Bh$$

$$B = \frac{1}{2}bh$$

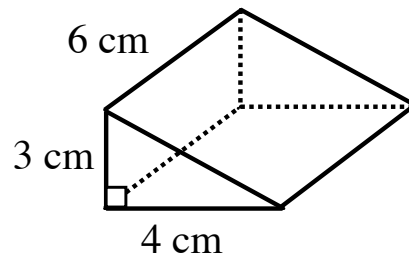


Find the volume of the triangular prism.

$$V = Bh$$

$$B = \frac{1}{2}(4)(3) = 6\text{cm}^2$$

$$V = (6\text{cm}^2)(6\text{cm}) = 36\text{cm}^3$$

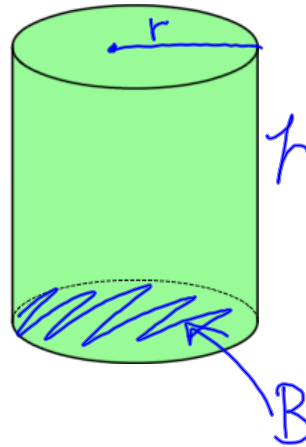


Volume of a Cylinder

$$V = Bh$$

$$B = \pi r^2$$

$$V = \pi r^2 h$$



Estimate the volume of the cylindrical paint can. Then find the volume to the nearest cubic unit.

$$V = Bh$$

$$B = (3.14)(4^2)$$

$$= (3.14)(16)$$

$$= 50.24$$

$$V = (50.24)(9)$$

$$V \approx 452.16 = 452 \text{ in}^3$$





Assignment

7th Grade Lesson 7-3

Pgs. 266-267 #5-14 all, 16, 20