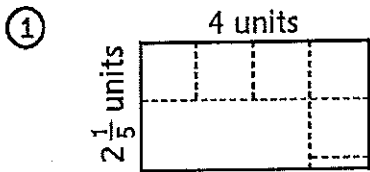


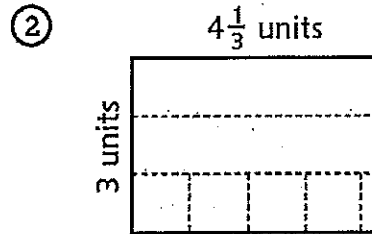
Here are two strategies you can use to find the area of a rectangle.

<p>Divide the rectangle into unit squares. Count the squares and partial squares.</p> <div style="text-align: center;"> </div> <p>6 whole squares plus 2 partial squares that are each $\frac{1}{2}$ square makes 7 squares in all.</p> <p>Area = 7 square units</p>	<p>Think about using copies of a row or column to fill up the rectangle.</p> <div style="text-align: center;"> </div> <p>There are $2\frac{1}{4}$ squares in each row and 3 rows. $2\frac{1}{4} + 2\frac{1}{4} + 2\frac{1}{4} = 6\frac{3}{4}$ squares in all.</p> <p>Area = $6\frac{3}{4}$ square units</p>
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Find the area of each rectangle.



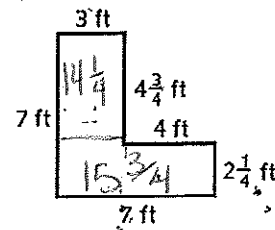
Area = 8 ⁴/₅ square units



Area = 13 square units

Solve each problem below. Then explain how you solved it. Use precise math language to help make your explanations clear.

- ① Mai is building this L-shaped deck on the corner of her house. She needs to know the area of the deck so she knows how much wood stain to buy. What is the area of the deck?



Area = 30 square feet

How I found the area:

Divide the shape into two rectangles, find the area of each, then add them together.

- ② Akasha is covering her patio with stone tiles that are $\frac{1}{2}$ yard by $\frac{1}{2}$ yard. The patio is 4 yards wide and $7\frac{1}{2}$ yards long.

- a. How many tiles will Akasha need to cover the patio? Use the picture to help you.

120 tiles

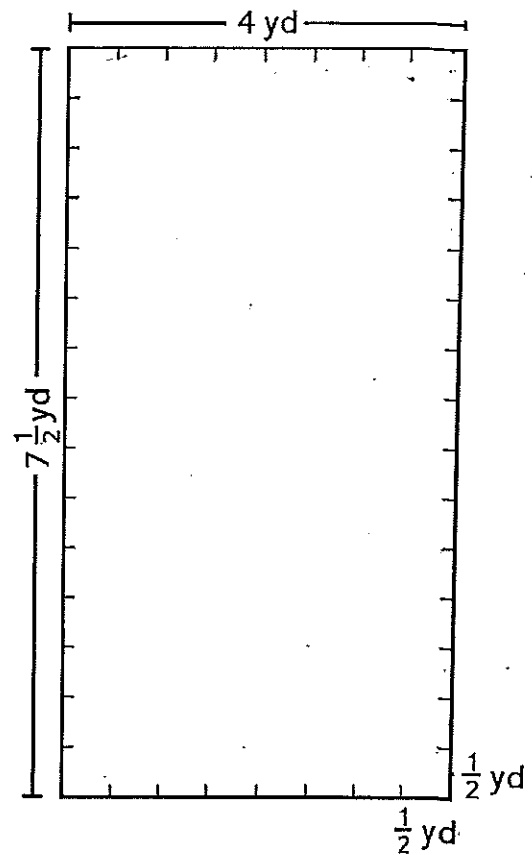
- b. How many tiles would it take to cover 1 square yard?

4 tiles

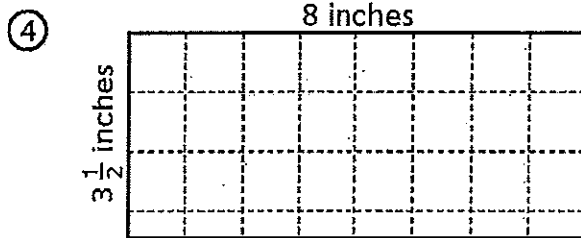
- c. Use your answers to Parts a and b to find the area of the patio in square yards.

20 square yards

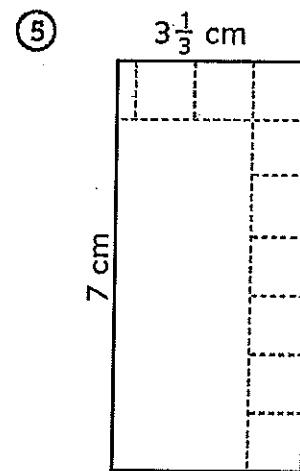
$$\begin{array}{r} 180 \div 9 = 20 \\ \hline \text{(number sentence)} \\ 120 \div 4 = 30 \end{array}$$



Find the area of each rectangle.

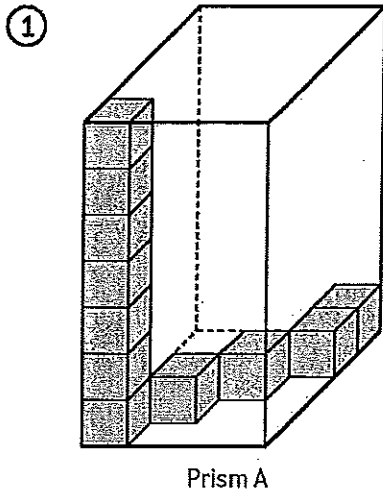


Area = 28 square inches



Area = 23 1/3 in.²

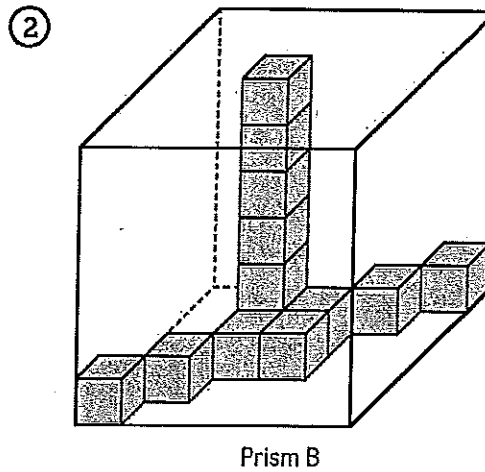
The cubes in each rectangular prism are the same size. Each prism has at least one stack of cubes that goes up to the top. Find the total number of cubes needed to completely fill each prism. Then find the volume of each prism.



Cubes needed to fill Prism A:

140 cubes

Volume of Prism A: 140 units³



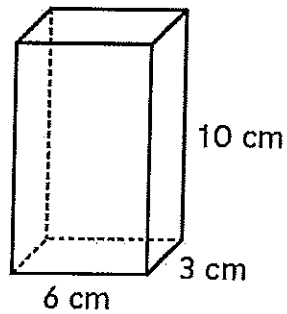
Cubes needed to fill Prism B:

216 cubes

Volume of Prism B: 216 cubic units

- ① What formula could you use to find the volume of this prism? Explain your answer.

$l \times w \times h$



- ② What is the volume of the prism? 180cm³
- ③ What other rectangular prisms would have the same volume as the one shown above? Fill in the dimensions below to show two possible answers.

Length	Width	Height

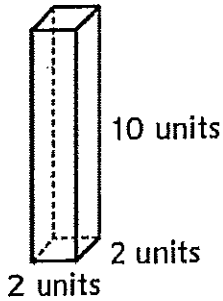
$V = l \times w \times h$ (volume = length \times width \times height)

$V = B \times h$ (volume = area of the base \times height)

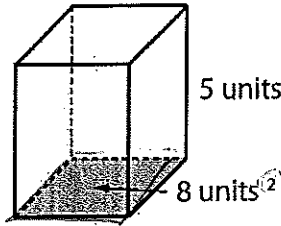
Use the formulas to find the volume of each prism. Be sure to include a unit.

Cross out the prism in each set that has a volume different than the other prisms.

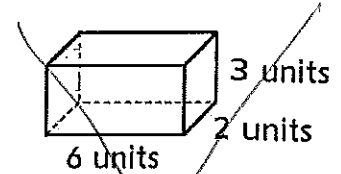
① Set 1



Volume = 40 units³

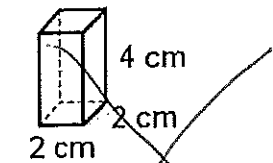


Volume = 40 units³

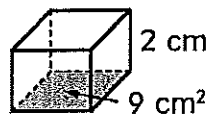


~~Volume = 30 units³~~

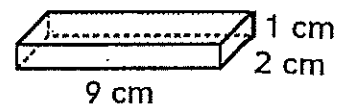
② Set 2



~~Volume = 16 cm³~~



Volume = 18 cm³

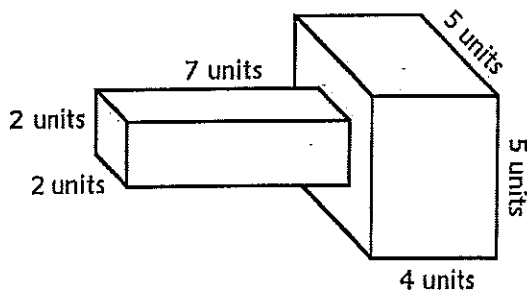


Volume = 18 cm³

Find the volume of each figure below. Then name at least one real-world object that the figure could model. For example, the figure in Problem 1 could model a flashlight.



①

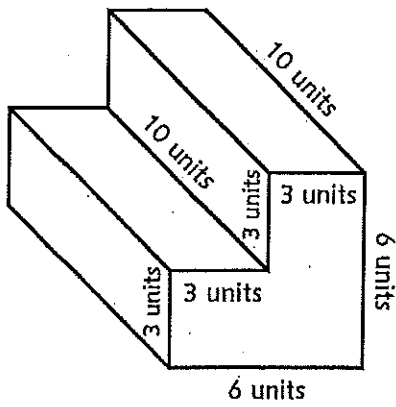


Volume = 128 cubic units

This figure could model ...

a flashlight

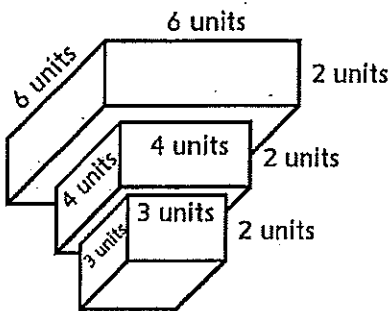
②



Volume = 270 cubic units

This figure could model ...

③



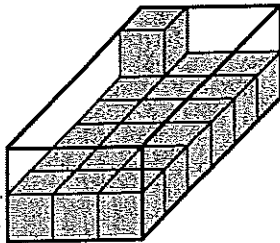
Volume = 122 cubic units

This figure could model ...

Use the pictures below to determine how many cubes can be packed in each prism. Then give the volume of the prism and write a number sentence.



①



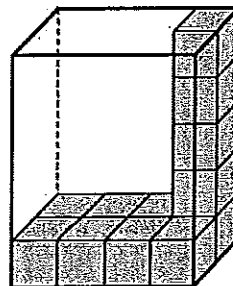
The prism holds 36 cubes.

Volume: 36 units³

Number sentence: 18 x 2 = 36

↓
(6 x 3)

②



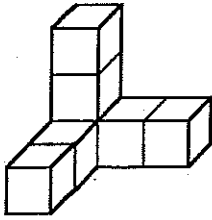
The prism holds 40 cubes.

Volume: 40 units³

Number sentence: 4 x 2 x 5 = 40

Find the volume of each figure. Include a unit if one is not given.

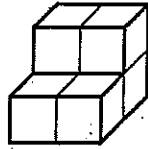
③



Volume:

7 units³

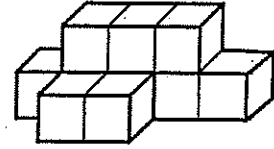
④



Volume:

6 units³

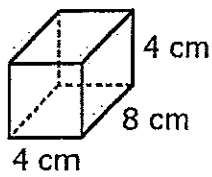
⑤



Volume:

10 units³

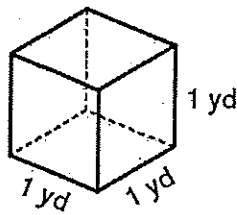
⑥



Volume:

128 cm³

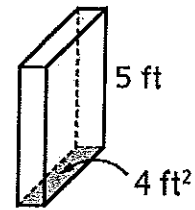
⑦



Volume:

1 yd³

⑧



Volume:

20 ft³