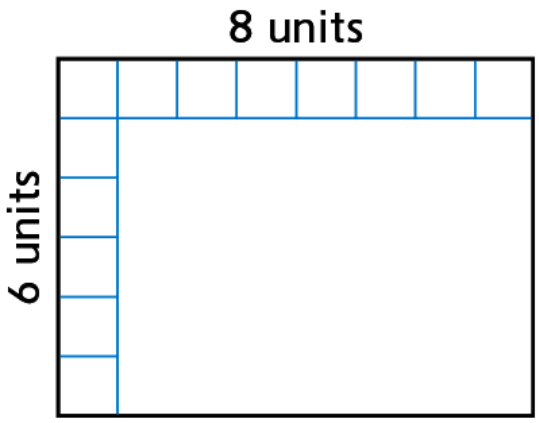
Name:_____ Unit 1 Test Review

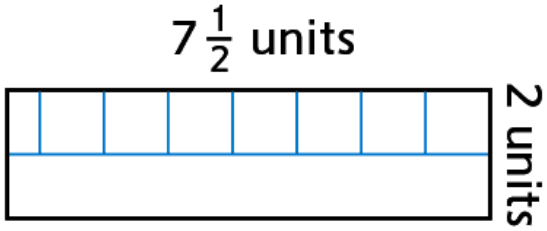
1. Find the area of the rectangle.
Write a number sentence to show your thinking.



Area = _____ square units

_____
(number sentence)

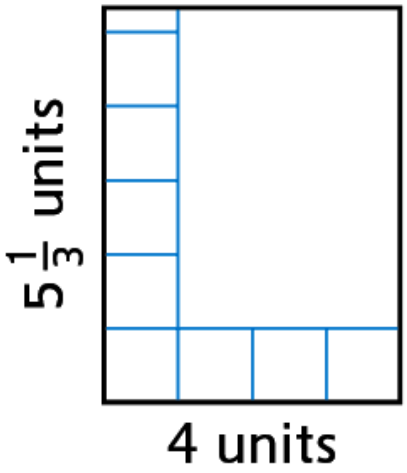
2. Find the area of the rectangle. Write a number sentence to show your thinking.



Area = _____ square units

_____
(number sentence)

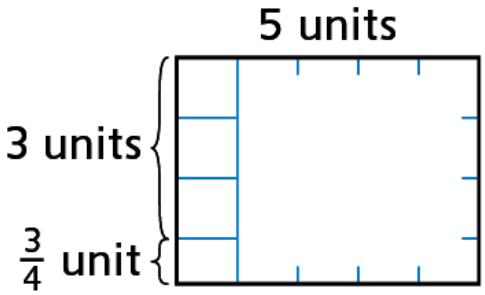
3 Find the area of the rectangle.
Write a number sentence to show your thinking.



Area = _____ square units

_____
(number sentence)

4 Find the area of the rectangle.
Write a number sentence to show your thinking.



Area = _____ square units

_____
(number sentence)

5 Explain the strategy you used to find the area of the rectangle in Problem 3. Use words like *row, column, square unit,* and *partial square* to help make your thinking clear.

6.

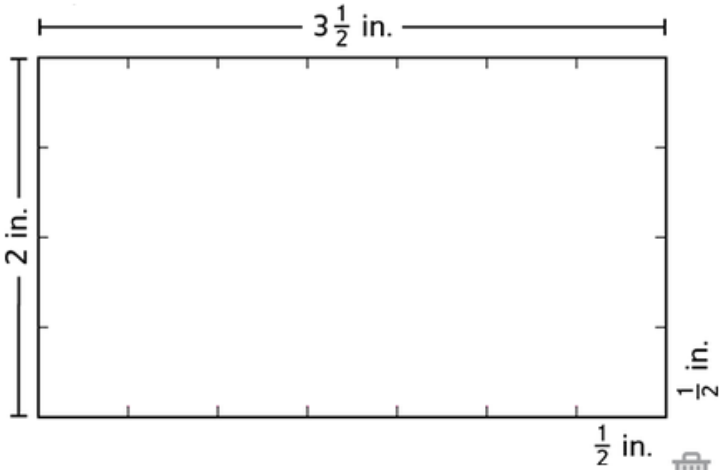
Anna is covering the top of her jewelry box with glass tiles that are $\frac{1}{2}$ inch long and $\frac{1}{2}$ inch wide. The top of the jewelry box is $3\frac{1}{2}$ inches by 2 inches.

a. How many tiles will she need to cover the top of the box? Use the picture to help.

____ tiles

b. How many of Anna's tiles does it take to cover 1 square inch?

____ tiles



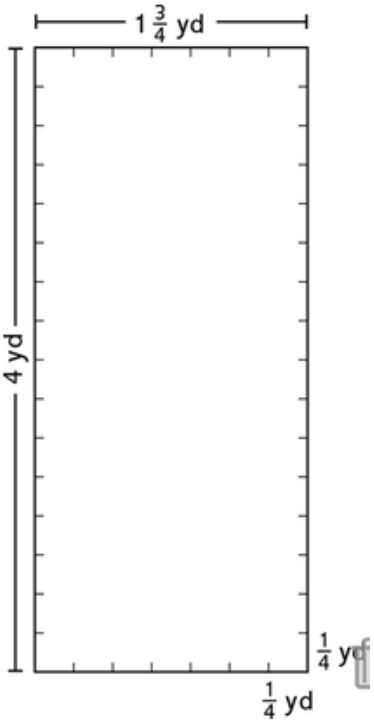
c. Use your answers to Parts a and b to find the area of the top of the jewelry box in square inches.

_____ square inches

_____
(number sentence)

7.

Deshawn is covering a 4-yard by $1\frac{3}{4}$-yard section of his bedroom wall with decorative tiles. The tiles are $\frac{1}{4}$ yard by $\frac{1}{4}$ yard.



a. How many tiles will Deshawn need to cover the section of the wall? Use the picture to help.

_____ tiles

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

_____ tiles

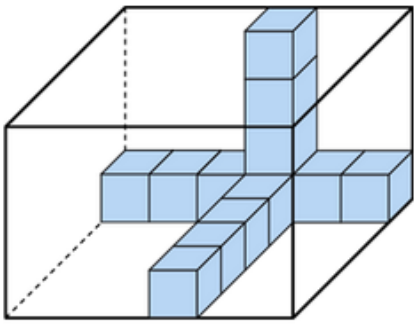
c. Use your answers to Parts a and b to find the area in square yards of the section of the wall that Deshawn is decorating.

_____ square yards

_____
(number sentence)

8.

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



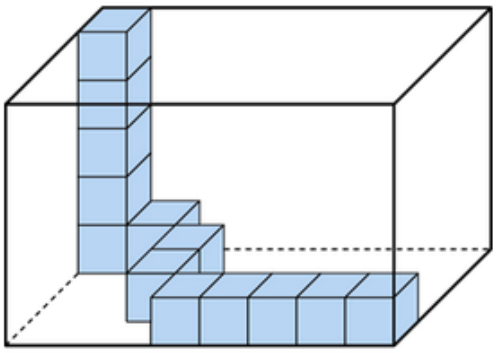
Prism 1

Cubes needed to fill Prism 1: _____ cubes

Volume of Prism 1: _____ cubic units

9

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



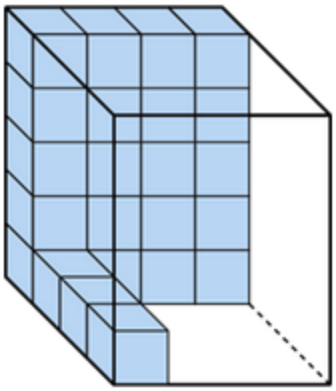
Prism 2

Cubes needed to fill Prism 2: _____ cubes

Volume of Prism 2: _____ $units^3$

10

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



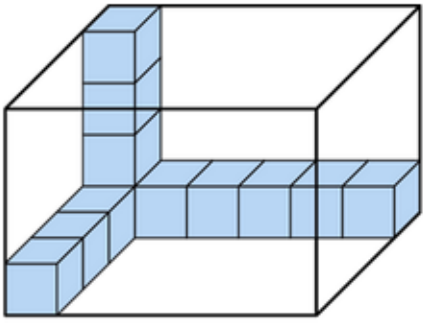
Prism 4

Cubes needed to fill Prism 4: _____ cubes

Volume of Prism 4: _____ $units^3$

11.

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



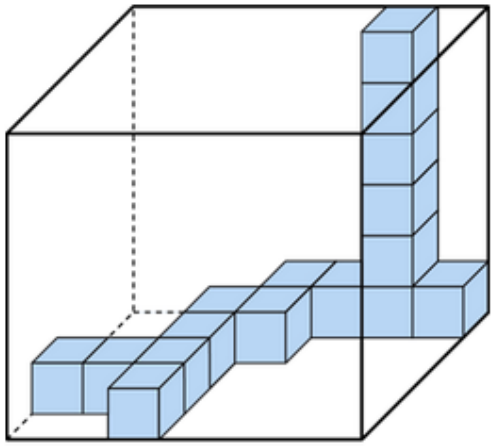
Prism 3

Cubes needed to fill Prism 3: _____ cubes

Volume of Prism 3: _____ cubic units

12.

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



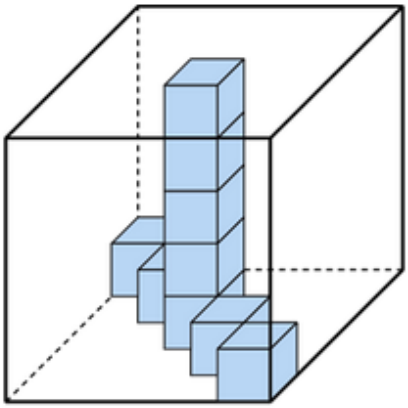
Prism 5

Cubes needed to fill Prism 5: _____ cubes

Volume of Prism 5: _____ $units^3$

13.

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



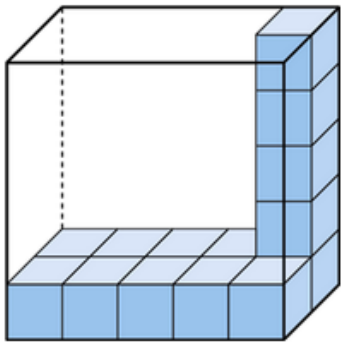
Prism 6

Cubes needed to fill Prism 6: _____ cubes

Volume of Prism 6: _____ cubic units

14.

Find the number of cubes in 1 layer, the number of layers, the total number of cubes that fil the prism, and the volume of Prism G.



Prism G

Number of cubes in 1 layer: ☐

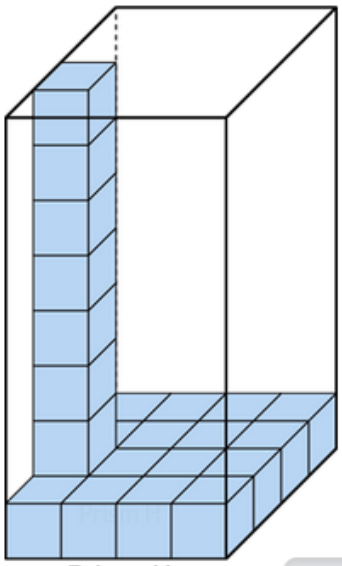
Number of layers: ☐

Total number of cubes that fill the prism: ☐

Volume: ☐ cubic units

15.

Find the number of cubes in 1 layer, the number of layers, the total number of cubes that fill the prism, and the volume of Prism H.



Prism H

Number of cubes in 1 layer: ☐

Number of layers: ☐

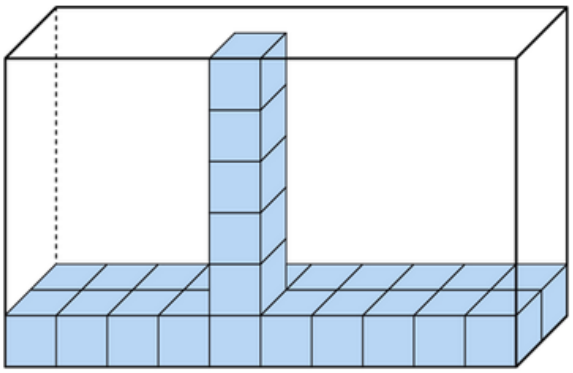
Total number of cubes that fill the prism: ☐

Volume: ☐ cubic units

Check

16.

Find the number of cubes in 1 layer, the number of layers, the total number of cubes that fill the prism, and the volume of Prism I.



Prism I

Number of cubes in 1 layer: ____

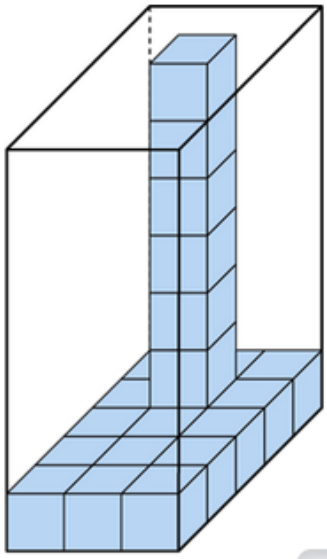
Number of layers: ____

Total number of cubes that fill the prism: ____

Volume: ____ cubic units

17.

Find the number of cubes in 1 layer, the number of layers, the total number of cubes th fill the prism, and the volume of Prism J.



Prism J

Number of cubes in 1 layer: ____

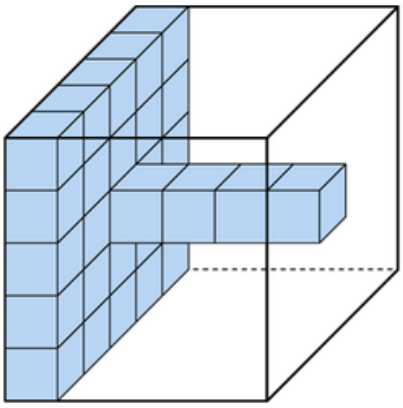
Number of layers: ____

Total number of cubes that fill the prism: ____

Volume: ____ cubic units

18.

Find the number of cubes in 1 layer, the number of layers, the total number of cubes that fill the prism, and the volume of Prism K.



Prism K

Number of cubes in 1 layer: ____

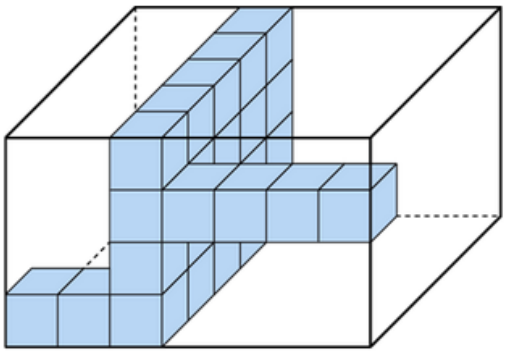
Number of layers: ____

Total number of cubes that fill the prism: ____

Volume: ____ cubic units

19.

Find the number of cubes in 1 layer, the number of layers, the total number of cubes that fill the prism, and the volume of Prism L.



Prism L

Number of cubes in 1 layer: ____

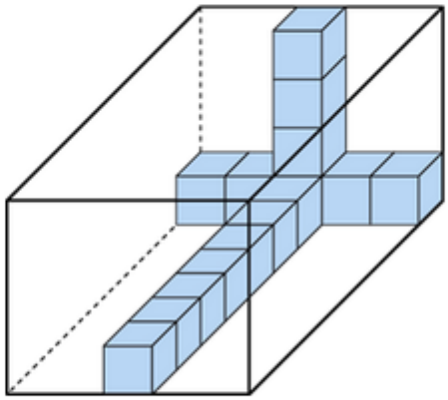
Number of layers: ____

Total number of cubes that fill the prism: ____

Volume: ____ cubic units

20.

Use a formula to find the volume of the prism. Record the formula you used.

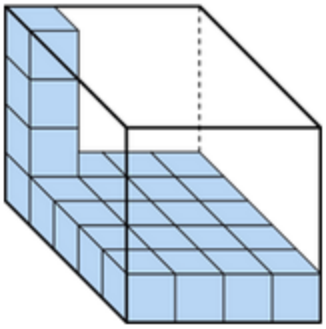


Volume: _____

Formula: _____

21.

Use a formula to find the volume of the prism. Record the formula you used.

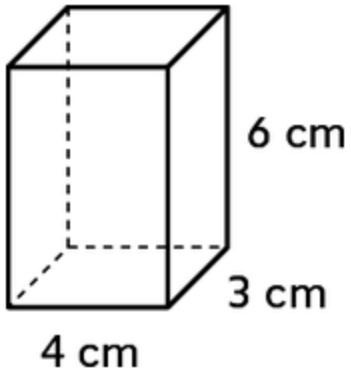


Volume: _____

Formula: _____

22.

Use a formula to find the volume of the prism. Record the formula you used.

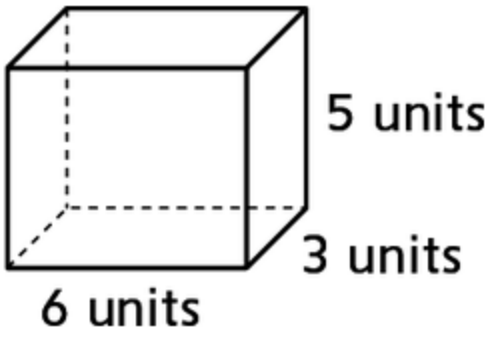


Volume: _____

Formula: _____

23

Use a formula to find the volume of the prism. Record the formula you used.

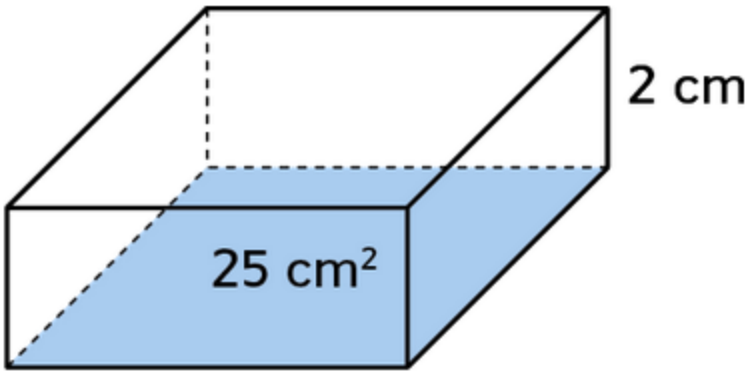


Volume: _____

Formula: _____

24.

Use a formula to find the volume of the prism. Record the formula you used.



Volume: _____

Formula: _____

25.

A rectangular prism has a volume of 36 cubic units. Write two different possible sets of dimensions for the prism.

Set 1:

length = _____

width = _____

height = _____

Set 2:

length = _____

width = _____

height = _____

26.

Is a cubic inch larger or smaller than a cubic centimeter? How do you know?

27.

List objects with volumes you might measure in cubic inches.

28.

a. How many cubic inches do you think are in a cubic foot? _____

b. How many inches are in a foot? _____

c. How many square inches are in a square foot? _____ square inches

How did you find your answer?

29.

d. How many cubic inches are in a cubic foot?

_____ cubic inches

How did you find your answer?

30.

List objects with volumes you might measure in cubic feet.

31. How many cubic feet are in a cubic yard?

_____ cubic feet

How did you find your answer?

32. List objects with volumes you might measure in cubic yards.

33.

Deena's family has a freezer that is 2 yards in width, 1 yard in length, and 1 yard in height.

a. What is the volume of the freezer? _____ cubic yards

b. How many cubic feet of food will fit in the freezer? _____ cubic feet

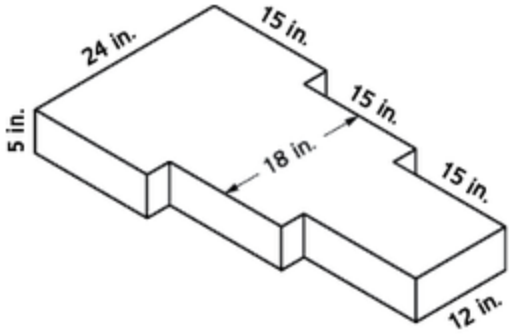
How did you find your answer?

c. Do you think cubic yards or cubic feet are better units to measure the volume of the freezer? Why?

34.

Use a mathematical model to estimate the volume of the instrument case.

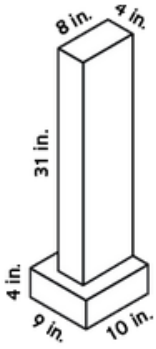
Xylophone case



The volume of the xylophone case is about _____ $in.^3$.

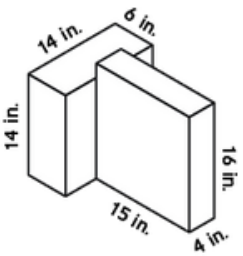
Use the mathematical models to estimate the volumes of the instrument cases.

1. Trombone case



The volume of the trombone case is about _____ $in.^3$.

2. French horn case



The volume of the French horn case is about _____ $in.^3$.