

5th Grade Math

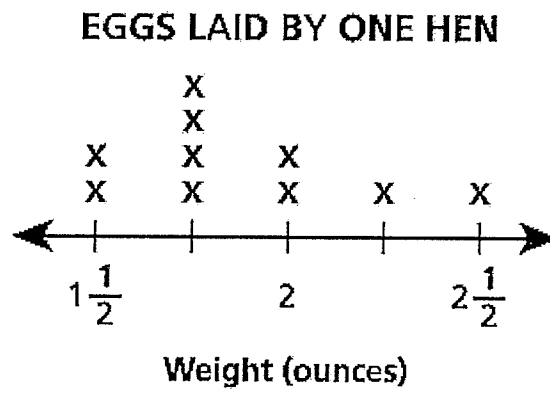
Week of April 19 - April 23, 2021



Name _____

* Please do not complete until advised by teacher*

The line plot shows the weights of ten eggs laid by one hen.



What is the total weight, in ounces, of the four heaviest eggs?

- A 4
- B 7
- C $8\frac{1}{2}$
- D $8\frac{3}{4}$

Additional Practice 10-1
Analyze Line Plots

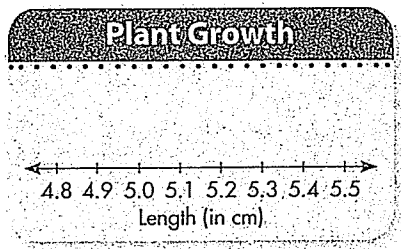
Another Look!

For an experiment, Bea recorded how much each of 14 seedlings grew in one month. She made a line plot to show the data. Which value occurred most often?

| Plant Growth (in cm) | |
|----------------------|---|
| DATA | 5.1 : 5.5 : 4.9 : 4.8 : 5.0 : 5.1 : 5.1 |
| | 5.0 : 4.9 : 5.1 : 5.0 : 5.1 : 5.0 : 5.2 |

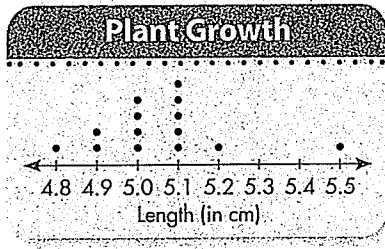
Step 1

Read the labels on the line plot. Values are listed in order on a number line.



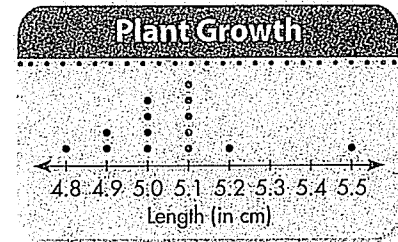
Step 2

Each dot stands for one time the value occurred. Dots are stacked when a value occurs more than once.



Step 3

Use the dot plot to solve.

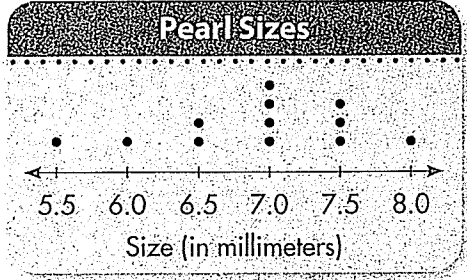
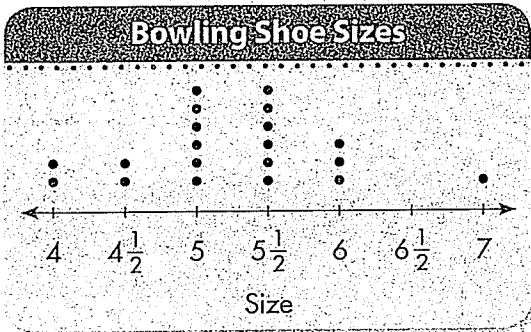


The value of 5.1 has the most dots, so 5.1 cm growth occurred most often.

In 1–4, use the line plots to solve.

1. Ani and her friends recorded their bowling shoe sizes. Which two bowling shoe sizes occurred most often?

2. A pearl diver recorded the sizes of the pearls in a batch. Which three pearl sizes occurred least often?



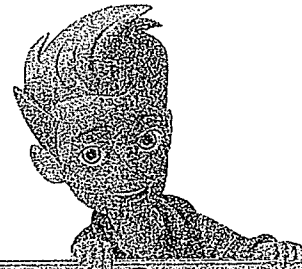
3. In Exercise 1, how many of Ani's bowling friends have size $6\frac{1}{2}$ shoes? Explain how you know.

4. In Exercise 2, how many pearls were in the batch? Explain how you know.

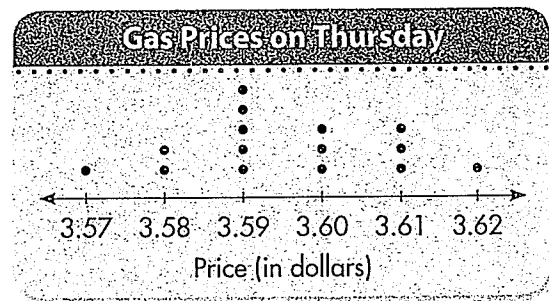


In 5–8, use the data set and line plot.

- On Thursday, Cole collected data on the gas prices at different gas stations. How many gas stations are in Cole's data set?
- Which gas price occurred most often?
- Cole bought 10 gallons of gas at the gas station with the lowest price. He paid with two \$20 bills. Write and solve an equation to find his change.
- Steve bought 10 gallons of gas at the gas station with the highest price. How much more than Cole did he pay for gas?



| | | | | |
|------|------|------|------|------|
| 3.61 | 3.60 | 3.59 | 3.58 | 3.59 |
| 3.59 | 3.60 | 3.61 | 3.62 | 3.61 |
| 3.58 | 3.57 | 3.59 | 3.60 | 3.59 |

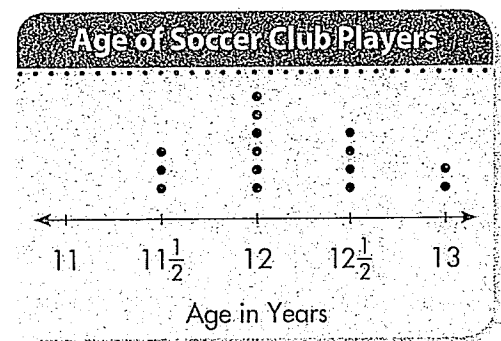


- Be Precise** Mrs. Dugan plans to serve 100 barbecue sandwiches at the company picnic. How many packages of barbecue buns will she need if buns come in packages of 8? Packages of 12?

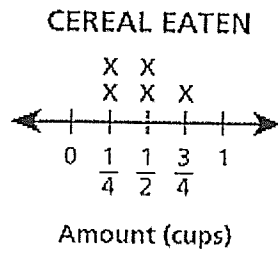
- Algebra** Janet had \$9.25 this morning. She spent \$4.50 for lunch, and then spent \$3.50 on school supplies. Write and solve an equation to find m , the amount of money Janet had left at the end of the day.

Assessment Practice

- Use the line plot at the right. How much older is the oldest player than the youngest player?
 - $\frac{1}{2}$ year
 - $1\frac{1}{2}$ years
 - 2 years
 - 11 years



The line plot below shows the amount of cereal Shyanne ate in 5 days.



What is the total number of cups of cereal that Shyanne ate in the 5 days?

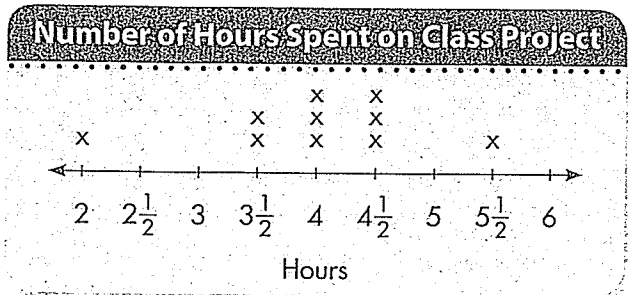
- A $1\frac{1}{2}$
- B $1\frac{3}{4}$
- C $1\frac{4}{6}$
- D $2\frac{1}{4}$



Additional Practice 10-3
Solve Word Problems Using Measurement Data

Another Look!

Mr. Culver made a line plot to show the number of hours students worked on a class project. What was the total number of hours that the students worked?



Remember, each X represents one student.



Use the line plot to make a frequency table.

Multiply each number of hours by its frequency. The product is the total amount for that value.

Add the products.

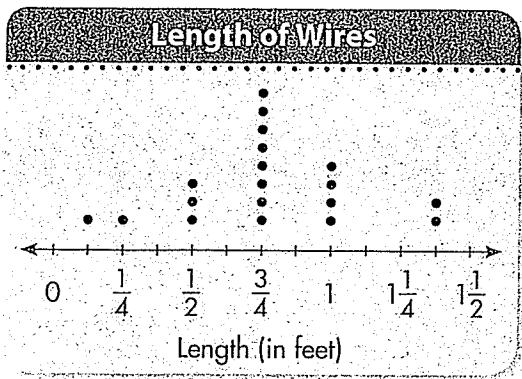
$$2 + 7 + 12 + 13\frac{1}{2} + 5\frac{1}{2} = 40$$

The students spent a total of 40 hours on the project.

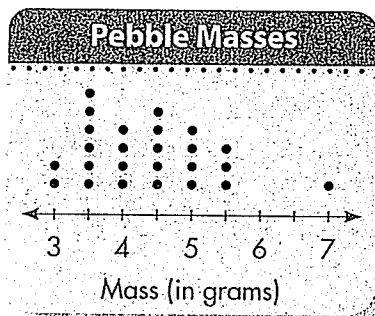
| Hours | Frequency | Multiplication |
|----------------|-----------|---|
| 2 | 1 | $1 \times 2 = 2$ |
| $3\frac{1}{2}$ | 2 | $2 \times 3\frac{1}{2} = 7$ |
| 4 | 3 | $3 \times 4 = 12$ |
| $4\frac{1}{2}$ | 3 | $3 \times 4\frac{1}{2} = 13\frac{1}{2}$ |
| $5\frac{1}{2}$ | 1 | $1 \times 5\frac{1}{2} = 5\frac{1}{2}$ |

In 1 and 2, use each line plot to answer the question.

- Wai recorded the length of each wire needed for a science project. What is the total length of wire needed?

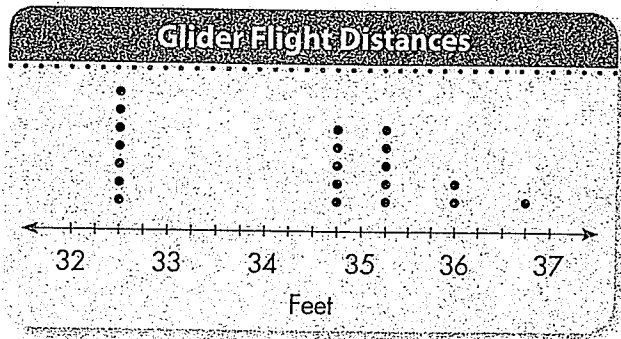


- Trey measured the mass of some pebbles. What is the combined mass of the pebbles that are $4\frac{1}{2}$ grams or more?



In 3 and 4, Dominick's class flew toy gliders. He recorded the flight distances in a line plot.

- What is the difference between the longest and shortest distances the gliders flew?
- Did more gliders fly farther or shorter than 35 feet? Explain.



5. **enVision**® STEM On June 1, 2013, the number of hours of daylight in Anchorage, Alaska was $18\frac{1}{4}$ hours. What was the number of hours without daylight?

6. **Number Sense** How could you estimate the quotient $162 \div 19$?

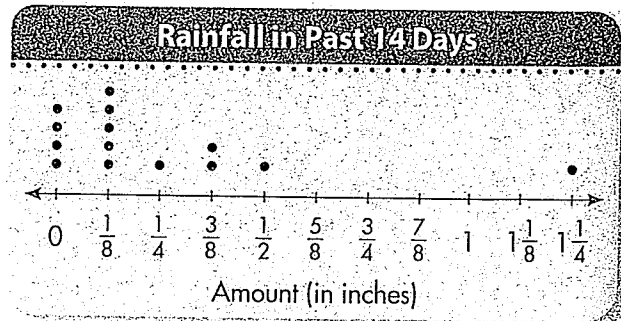
7. **Reasoning** Nolan listed the weights of oranges in a box in the frequency table. Which is greater, the total weight of the 6.25-ounce oranges or the total weight of the 7.25-ounce oranges? How much more? Explain.

| Weight (in ounces) | Frequency | Multiplication |
|--------------------|-----------|------------------------|
| 6.25 | 13 | ? |
| 6.5 | 16 | $16 \times 6.5 = 104$ |
| 6.75 | 20 | $20 \times 6.75 = 135$ |
| 7.0 | 14 | $14 \times 7.0 = 98$ |
| 7.25 | 9 | ? |

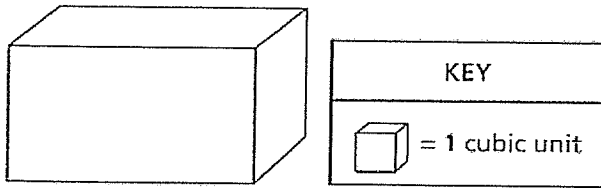
Assessment Practice

8. Anita recorded the amount of rainfall each day for 14 days. What was the total amount of rainfall in the 14 days?

- (A) $6\frac{7}{8}$ in.
- (B) $4\frac{1}{2}$ in.
- (C) $3\frac{3}{8}$ in.
- (D) $\frac{1}{8}$ in.



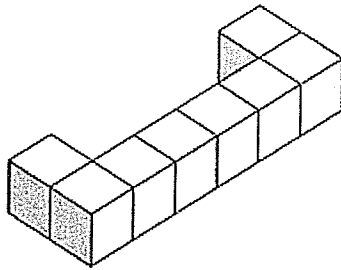
Tyler completely filled the box shown below with unit cubes, with no gaps or overlaps.



He then counted the number of cubes that he used to fill the box. What type of measurement is represented by the number of cubes Tyler counted?

- A area
- B height
- C volume
- D perimeter

The figure below is made of unit cubes.



How many unit cubes need to be added to the figure so that it will have a total volume of 12 cubic units?

- A 1
- B 2
- C 4
- D 8



Name _____



Additional Practice 11-1 Model Volume

Another Look!

Volume is the measure of space inside a solid figure.

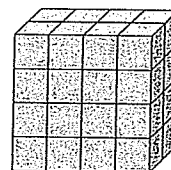
Volume is measured in cubic units.



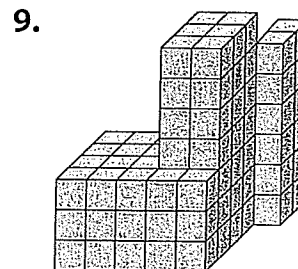
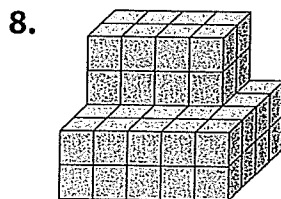
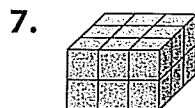
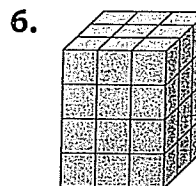
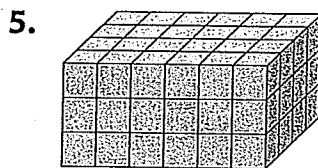
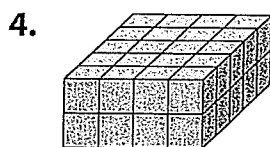
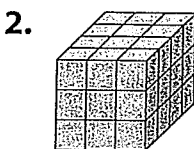
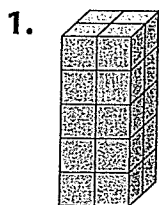
Find the volume of this solid by counting the number of unit cubes.

There are 8 cubes in the bottom layer and there are 4 layers. The total number of unit cubes is 32.

So, the volume is 32 cubic units.

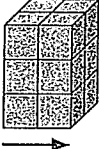
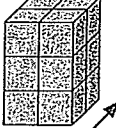
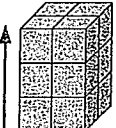


In 1–9, find the volume of each solid. Use unit cubes to help.

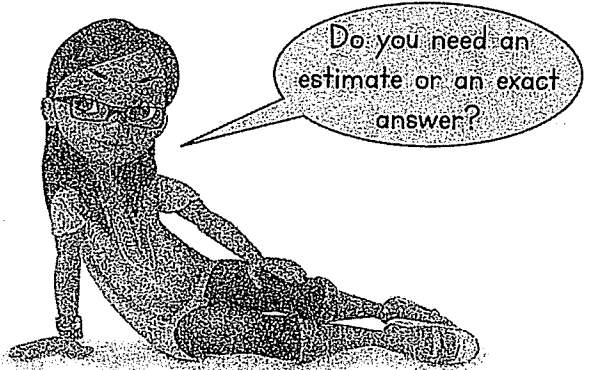


In 10–12, use the table.

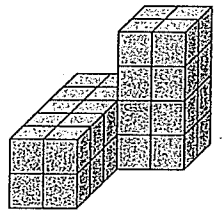
- 10. Higher Order Thinking** Complete the table. Show some different ways that a rectangular prism can have a volume of 12 cubic units.
- 11. Look for Relationships** Look across each row of the table. What pattern do you see?
- 12.** Use the table to help. How many unit cubes are needed to make a model of a rectangular prism that is 4 units long, 3 units wide, and 2 units tall?

| Number of Cubes Long | Number of Cubes Wide | Number of Cubes Tall |
|--|---|---|
|  |  |  |
| 1 | 1 | 12 |
| 2 | 2 | 3 |
| 2 | 3 | |
| 2 | | 1 |
| 3 | 1 | |
| 3 | 2 | |
| 3 | | 1 |
| 4 | 1 | |
| 6 | | 1 |

- 13. Number Sense** A building is 509 feet tall. Each floor is about 14 feet tall. About how many floors does the building have?

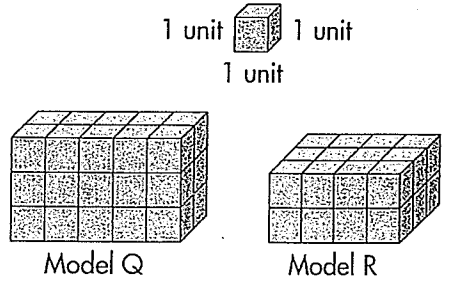


- 14.** Velma and Bruce combined their model buildings to make one building. How can they change each building part to make the parts equal in volume? Explain your reasoning.

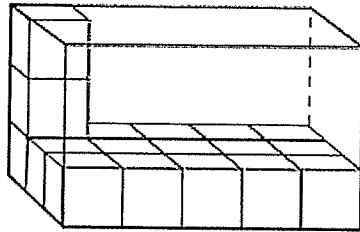


Assessment Practice

- 15.** Both of the models shown are made up of 1-inch cubes. Which statement about these models is true?
- (A) Model Q and Model R have the same volume.
 - (B) Model R has a greater volume than Model Q.
 - (C) The volume of Model Q is 7 cubic inches greater than the volume of Model R.
 - (D) The volume of Model Q and Model R combined is 54 cubic inches.



Rashad is filling a toy box with wooden blocks that are each a unit cube in size. He filled the bottom layer of a toy box with 15 wooden blocks. He then stacked two more wooden blocks on top of the bottom layer. The partially filled toy box is shown below.



What was the total volume, in cubic units, of the toy box?

- A 15
- B 17
- C 30
- D 45

The volume of a single layer in a rectangular prism is 18 cubic centimeters. There are 5 layers in this rectangular prism. What is the volume, in cubic centimeters, of this rectangular prism?

- A 90
- B 23
- C 13
- D 3.6

Name _____

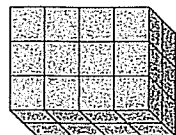


Additional Practice 11-2

Develop a Volume Formula

Another Look!

What is the volume of the rectangular prism?



Use the formula $V = b \times h$ and cubes to help.

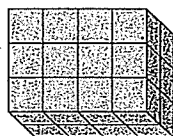


$$V = b \times h$$

b = the area of the base

h = height

What is the area of the base?



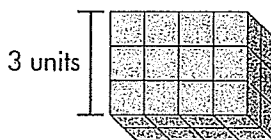
base →

$$A = \ell \times w$$

$$A = 4 \times 2$$

$$A = 8 \text{ units}^2$$

What is the height, h ?



The prism is 3 units tall.

Use the values to complete the formula.

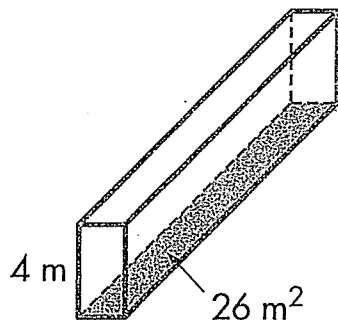
$$V = b \times h$$

$$V = 8 \times 3$$

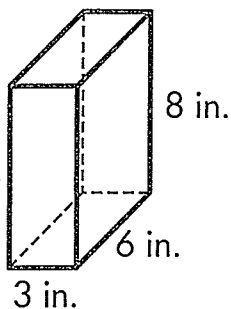
$$V = 24 \text{ units}^3$$

In 1–6, find the volume of each rectangular prism.

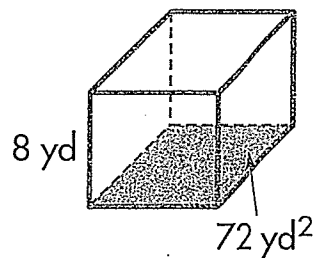
1.



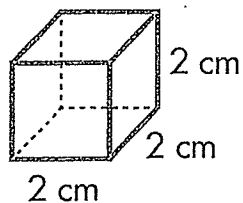
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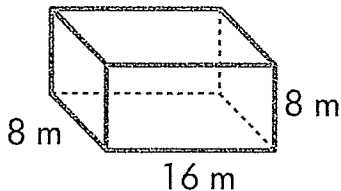
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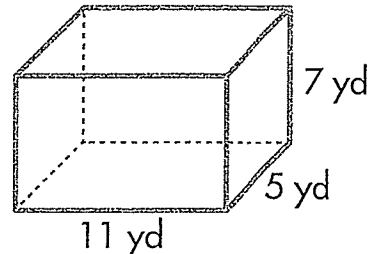
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5.



6.



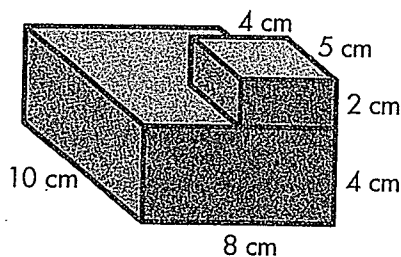
Name _____



Additional Practice 11-3 Combine Volumes of Prisms

Another Look!

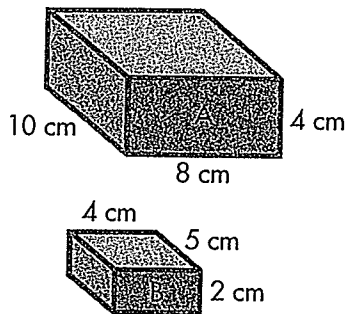
What is the volume of the solid figure?



Make sure you find the ℓ , w , and h of each rectangular prism.



Separate the solid figure into rectangular prisms.



Find the volume of each rectangular prism.

Prism A:
 $V = \ell \times w \times h$
 $V = 8 \times 10 \times 4$
 $V = 80 \times 4$
 $V = 320$

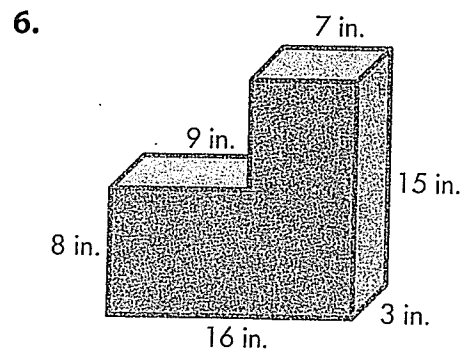
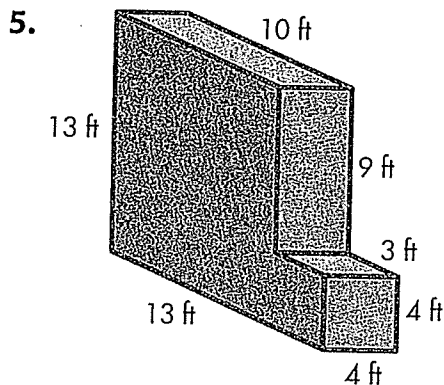
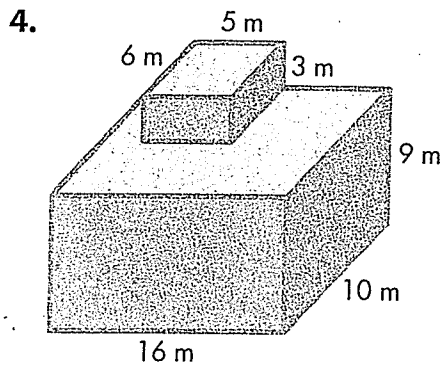
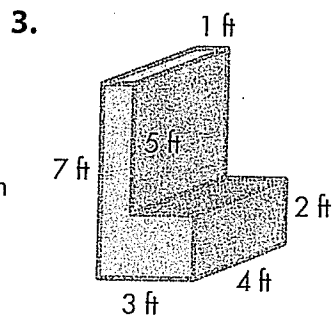
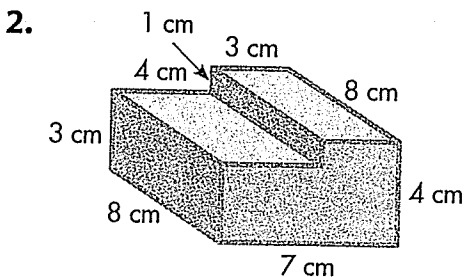
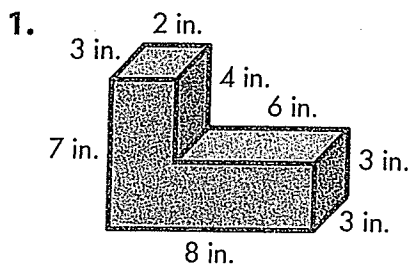
Prism B:
 $V = \ell \times w \times h$
 $V = 4 \times 5 \times 2$
 $V = 20 \times 2$
 $V = 40$

Add the volumes.

$$320 + 40 = 360$$

So, the volume of the solid figure is 360 cm^3 .

In 1–6, find the volume of each solid figure.



Standards Review

5 There were 4,863 people at a music concert. The music concert auditorium is divided into different sections of seating. Each section can hold 55 people. How many sections are needed to hold all 4,863 people?

- A 87 sections
- B 88 sections
- C 89 sections
- D 90 sections

6 Aaron wants to find the average amount of time it takes him to run 1 mile. He recorded the time it took him to run 1 mile the last five days.

| Day | Time (minutes) |
|-----|----------------|
| 1 | 7.45 |
| 2 | 7.98 |
| 3 | 7.01 |
| 4 | 8.16 |
| 5 | 7.56 |

Aaron will find the average amount of time by finding the sum of the times and then dividing by the number of times he recorded in the chart. What was the average amount of time it took him to run 1 mile rounded to the nearest hundredth of a minute?

- A 7.32 minutes
- B 7.56 minutes
- C 7.63 minutes
- D 7.98 minutes

6 A local business says it will contribute 25 cases of basketballs. The district orders 486 basketballs. How many basketballs will the district have?

7 Steve is in charge of ordering supplies for the gym. He ordered 48 bags of basketball nets, 119 cases of softballs, 81 boxes of volleyball nets, and 128 cases of footballs. How many total items did Steve order?

8 A sporting goods store ordered 86 boxes of golf balls. Each box contained 24 golf balls. How many golf balls were there in all?

- A 110
- B 1,800
- C 2,064
- D 2,486

9 Liam earns \$12 per hour at his job. He works 8 hours per day. How much money would he earn after working 28 days?

- A \$2,240
- B \$2,688
- C \$2,812
- D \$3,360

10 An audio book subscription service has 8,685 members. Each member pays \$15 per month for the service. How much money is paid in all for all of the members for one month of the service?

- A \$579
- B \$8,700
- C \$43,425
- D \$130,275

5 There are 196 fifth-grade students at an elementary school. The students are divided into equal size classes of 28 students each. How many fifth-grade classes are there at the school?

A 7

B 8

C 9

D 11

6 A catering company ordered 7,040 plastic forks. The forks came in boxes of 55 forks each. How many boxes of forks did they order?

A 118

B 122

C 125

D 128

7 A shuttle service that works sporting events consists of buses that hold 44 people each. How many buses will be needed to shuttle 2,728 people to a sporting event?

A 62

B 68

C 72

D 88

6 The total length of square floor tiles placed next to each other is 512 inches. How many square tiles are there if the side length of each tile is 16 inches?

- A 28 tiles
- B 32 tiles
- C 51 tiles
- D 67 tiles

7 Chen drew a line in the sand that was 945 millimeters long. She divided the line into sections that were each 45 millimeters long. Into how many sections did she divide the line?

- A 9
- B 15
- C 21
- D 24

8 A swim club recorded the total number of 50-meter laps its members swam. The total distance all members of the swim club swam was 4,400 meters. Each member swam the same number of laps. How many members are in the swim club?

- A 22
- B 44
- C 88
- D 94

8 A wall contains bricks that each weigh 4.2 pounds. The total weight of the bricks is 2,209.2 pounds. How many bricks are in the wall?

- A 500
- B 514
- C 526
- D 594

9 The table below shows the distance each runner in a track club runs each day for a certain number of days.

| Runner | Distance Each Day (kilometers) | Number of Days |
|--------|--------------------------------|----------------|
| Kim | 3.3 | 18 |
| Hazam | 2.8 | 20 |
| Ling | 3.5 | 17 |
| Nigel | 2.4 | 19 |

Who ran the farthest total distance?

- A Kim
- B Hazam
- C Ling
- D Nigel

- 8 Casey has \$162.41. She spends \$48.55 at the grocery store, \$22.95 at the shoe store, and \$65.72 at the clothing store. How much money does she have left?
- A \$15.67
 - B \$25.19
 - C \$37.22
 - D \$44.77
- 9 A car gets an average of 15.2 miles per gallon. Using this average, how many miles can the car travel using 8.7 gallons of gas?
- A 6.5 miles
 - B 23.9 miles
 - C 132.24 miles
 - D 158.72 miles
- 10 A 24-pack of granola bars costs \$3.65. Rounded to the nearest penny, what is the cost per granola bar?
- A \$0.12
 - B \$0.15
 - C \$0.24
 - D \$0.36

Enrichment

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