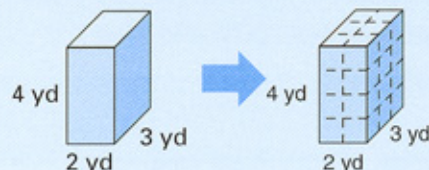


Example 1 Find the volume of the rectangular prism.



Step 1 Think of the prism filled with cubes.

Step 2 Find the number of cubes in the prism.

6 cubes in each layer

4 layers of cubes

24 cubes in all

The volume is 24 cubic yards.

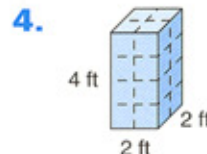
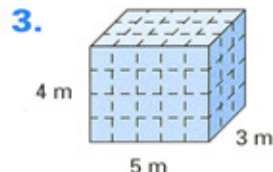
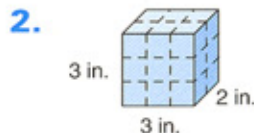
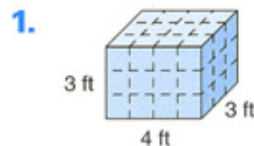
Volume is the space inside a 3-dimensional shape.

$$V = l \times w \times h$$

Write cubic yards as yd^3 .

Answer: 24 yd^3

Set A Find the volume of the rectangular prism.



6. $l = 7 \text{ in.}$
 $w = 3 \text{ in.}$
 $h = 8 \text{ in.}$

7. $l = 6 \text{ ft}$
 $w = 5 \text{ ft}$
 $h = 2 \text{ ft}$

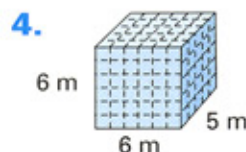
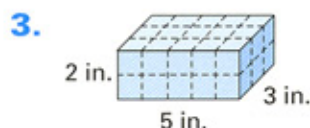
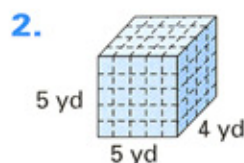
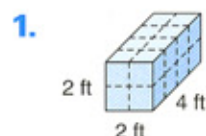
8. $l = 12 \text{ m}$
 $w = 9 \text{ m}$
 $h = 11 \text{ m}$

9. $l = 4 \text{ cm}$
 $w = 7 \text{ cm}$
 $h = 5 \text{ cm}$

5. **Solve.** On Molly's birthday she and her two sisters shared her cake. Molly ate $\frac{1}{5}$ of the cake. Her sister Jessica ate $\frac{1}{3}$, and her sister Leslie ate $\frac{1}{4}$. How much of the cake was left?

10. **Solve.** There are three dairies in the town of Small Point. On average, Buck's Dairy produces 87 gallons of milk a day, Crazy Cow Dairy produces 74 gallons, and the Happy Heifer Dairy produces 97 gallons. What is the daily mean amount of milk produced by the dairies in Small Point?

Set B Find the volume of the rectangular prism.



6. $l = 4$ ft
 $w = 3$ ft
 $h = 7$ ft

7. $l = 8$ in.
 $w = 3$ in.
 $h = 6$ in.

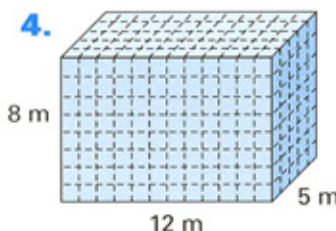
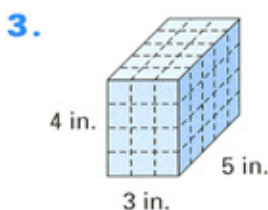
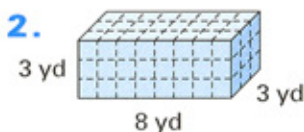
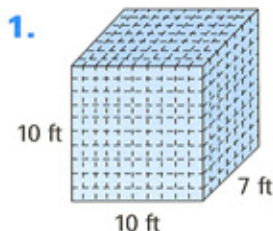
8. $l = 11$ yd
 $w = 9$ yd
 $h = 4$ yd

9. $l = 6$ m
 $w = 5$ m
 $h = 3$ m

5. **Solve.** Edie spent \$11.46 for a T-shirt, \$2.85 for pizza, and \$6.50 for a movie ticket. How much of her \$25 did she have left?

10. **Solve.** Terry had collected 3,689 baseball cards. Today he received 11,312 baseball cards. Estimate to the nearest thousand how many cards Terry now has.

Set C Find the volume of the rectangular prism.



6. $l = 7$ yd
 $w = 5$ yd
 $h = 8$ yd

7. $l = 3$ ft
 $w = 2$ ft
 $h = 7$ ft

8. $l = 8$ m
 $w = 7$ m
 $h = 4$ m

9. $l = 11$ mm
 $w = 7$ mm
 $h = 9$ mm

5. **Solve.** A moving truck is 10 feet long by 8 feet wide by 10 feet high. Each box measures 2 feet long by 2 feet wide by 2 feet high. How many boxes will fit in the truck?

10. **Solve.** On weekdays, Eun practices for 1 hour and 5 minutes. On weekend days, John practices for 2 hours and 45 minutes. Who practices more each week?

Set A



- | | |
|-----|-------------------------|
| 1. | 36 ft^3 |
| 2. | 18 in.^3 |
| 3. | 60 m^3 |
| 4. | 16 ft^3 |
| 5. | $\frac{13}{60}$ of cake |
| 6. | 168 in.^3 |
| 7. | 60 ft^3 |
| 8. | $1,188 \text{ m}^3$ |
| 9. | 140 cm^3 |
| 10. | 86 gallons |

Set B



- | | |
|-----|----------------------|
| 1. | 16 ft ³ |
| 2. | 100 yd ³ |
| 3. | 30 in. ³ |
| 4. | 180 m ³ |
| 5. | \$4.19 |
| 6. | 84 ft ³ |
| 7. | 144 in. ³ |
| 8. | 396 yd ³ |
| 9. | 90 m ³ |
| 10. | about 15,000 cards |

Set C



- | | |
|-----|---------------------|
| 1. | 700 ft ³ |
| 2. | 72 yd ³ |
| 3. | 60 in. ³ |
| 4. | 480 m ³ |
| 5. | 100 boxes |
| 6. | 280 yd ³ |
| 7. | 42 ft ³ |
| 8. | 224 m ³ |
| 9. | 693 mm ³ |
| 10. | John |