

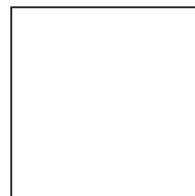

**Math**  
**3**

## Volume

We measure length with a ruler. 1 in

We measure area like this.

$$\text{Area} = \text{length} \times \text{width}$$



1 inch wide

1 square inch

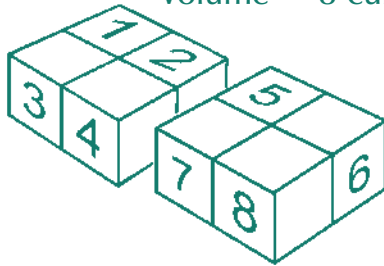
1 in<sup>2</sup>

1 inch long

Volume is the space taken up by a solid. It is measured in cubes.

This cube has 2 layers with 4 cubes in each layer. When we put the layers together some of the cubes are hidden.

Volume = 8 cubic centimeters

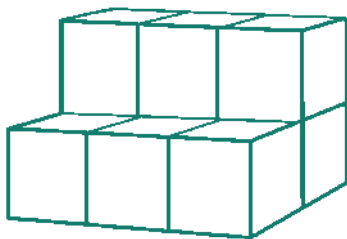


or  
 $V = 8 \text{ cm}^3$

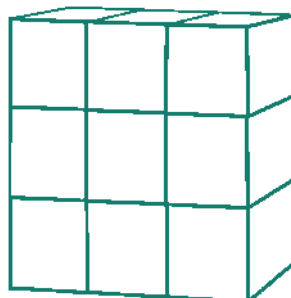


one  
hidden  
cube

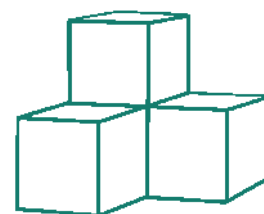
**Find the volume. Remember the hidden cubes.**



1. a. \_\_\_\_\_ cm<sup>3</sup>



b. \_\_\_\_\_ cm<sup>3</sup>



c. \_\_\_\_\_ cm<sup>3</sup>



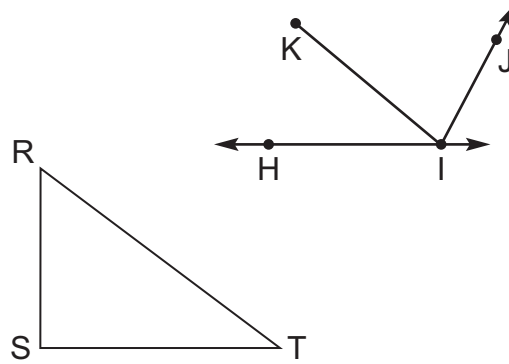
# We Remember

Name the following. Use the symbols.

2. line segment \_\_\_\_\_

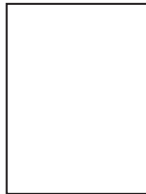
3. line \_\_\_\_\_

4. triangle \_\_\_\_\_

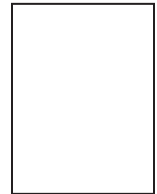


Multiply three factors.

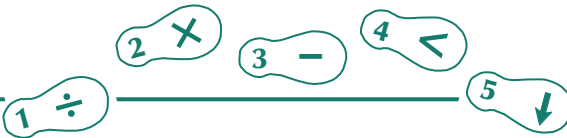
5. a.  $2 \times 8 \times 4 =$  \_\_\_\_\_



b.  $7 \times 3 \times 6 =$  \_\_\_\_\_



## Skill Builders $+$ $-$ $\times$ $\div$



Check

|                                                       |                                                 |                                                   |                                                   |                                                 |
|-------------------------------------------------------|-------------------------------------------------|---------------------------------------------------|---------------------------------------------------|-------------------------------------------------|
|                                                       | \$ 2.58                                         |                                                   |                                                   |                                                 |
|                                                       | 1.47                                            |                                                   |                                                   |                                                 |
|                                                       | 0.36                                            |                                                   |                                                   |                                                 |
|                                                       | 9.41                                            | 628.40                                            | 25                                                | \$ 3.72                                         |
| 6. a. $\times \begin{array}{r} .15 \\ 24 \end{array}$ | b. $+\begin{array}{r} 8.52 \\ 8.52 \end{array}$ | c. $-\begin{array}{r} 95.17 \\ 95.17 \end{array}$ | d. $\times \begin{array}{r} 97 \\ 97 \end{array}$ | e. $\times \begin{array}{r} 8 \\ 8 \end{array}$ |

Write remainders as whole numbers.

7. a.  $8 \overline{)75}$

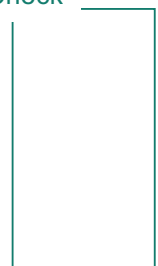
b.  $3 \overline{)48}$

Check



c.  $7 \overline{)542}$

Check



8. The boys like to watch the horned lizards, or “horny toads” in the desert near the school. A horny toad can shoot blood out of its eyes to scare away its enemies. If a 13 cm horny toad can shoot blood 7 times its length, how far can it shoot blood from its eyes?

\_\_\_\_\_

My Work Space



9. Ants are a horny toad’s favorite food. One day Brendon watched a horny toad sitting beside an anthill. In one minute it gobbled up 8 ants that scurried by. If the horny toad kept that up for 15 minutes, how many ants would he eat?

\_\_\_\_\_

My Work Space

What solids do these items suggest?



10. a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_ d. \_\_\_\_\_ e. \_\_\_\_\_

Circle the greater number in each pair.

11. a. 1.5 1.8

- b. 6.80 6.08

- c. 2.1 1.2

Circle the smaller number in each pair.

12. a. 2.25 5.22

- b. 3.4 3.6

- c. 3.02 3.10

Write the decimals.

13. five and nine-tenths \_\_\_\_\_

14. one and one-hundredth \_\_\_\_\_

### Lesson 3

Circle the numbers that are . . .

15. a. common factors of 8 and 32.

2 3 4 5 6 7 8 9 10

b. common factors of 6 and 12.

2 3 4 5 6 7 8 9 10

Measure to the nearest centimeter.

16. \_\_\_\_\_ cm

\_\_\_\_\_

Write the numbers.

17. a. \_\_\_\_\_ yd = 27 ft

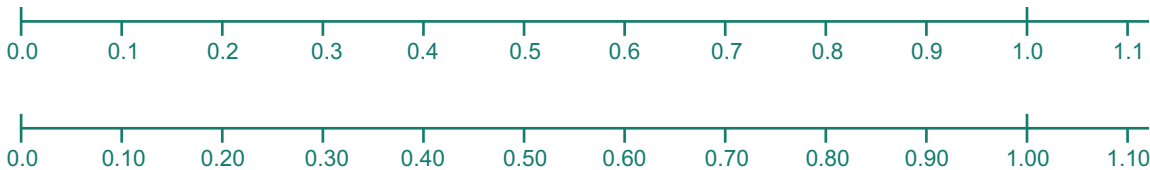
b. 24 ft = \_\_\_\_\_ yd

c. \_\_\_\_\_ yd = 18 ft

18. a. \_\_\_\_\_ qt = 40 gal

b. 30 gal = \_\_\_\_\_ qt

c. \_\_\_\_\_ qt = 4 gal



Look at the number lines to help you find the answers.

19. 6 tenths = \_\_\_\_\_ hundredths

20. 1 tenth = \_\_\_\_\_ hundredths

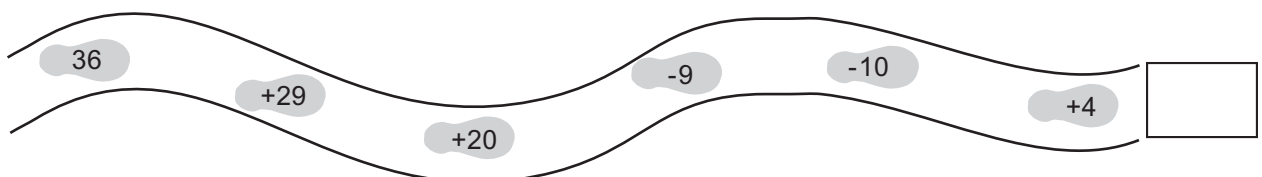
21. 80 hundredths = \_\_\_\_\_ tenths

22. 25 hundredths = \_\_\_\_\_ tenths + \_\_\_\_\_ hundredths

The temperature on the surface of the sun is about 11,000°F (6,000°C).

— **Mental Math** . . . ?

23.





## Changing Improper Fractions to Whole or Mixed Numbers

You can change an improper fraction to a whole or mixed number by dividing.

Change  $\frac{25}{8}$  to a mixed number.

**Step 1**

Divide the numerator (25) by the denominator (8).

$$\begin{array}{r} 3 \\ 8 \overline{)25} \\ \underline{24} \\ 1 \end{array}$$

**Step 2**

If there is a remainder, write it as a fraction.  
If there is no remainder, the answer is a whole number.

$$\begin{array}{r} 3\frac{1}{8} \\ 8 \overline{)25} \\ \underline{24} \\ 1 \end{array}$$

Change these improper fractions to mixed numbers.

1. a.  $\frac{14}{8}$

b.  $\frac{10}{3}$

c.  $\frac{58}{8}$

Add. Each answer will be an improper fraction. Change each one to a mixed number. Do the dividing on another sheet of paper. One is done for you.

2. a.  $\frac{3}{4} + \frac{3}{4}$   
 $\frac{6}{4} = 1\frac{2}{4}$

b.  $\frac{7}{10} + \frac{5}{10}$

c.  $\frac{6}{8} + \frac{3}{8}$

d.  $\frac{4}{5} + \frac{4}{5}$



# We Remember

Write number sentences to find the perimeters.

3. Rectangle \_\_\_\_\_

4. Triangle \_\_\_\_\_

Write number sentences to find the area of both squares and the rectangle.

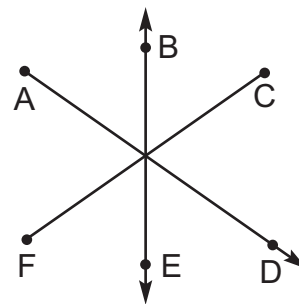
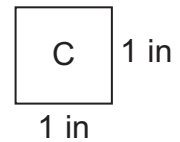
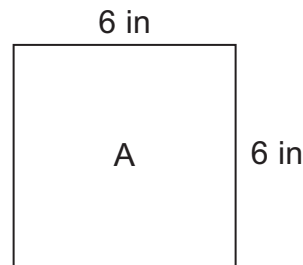
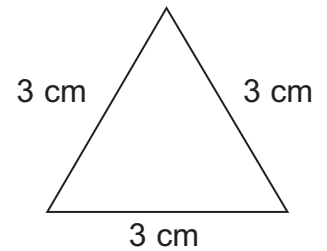
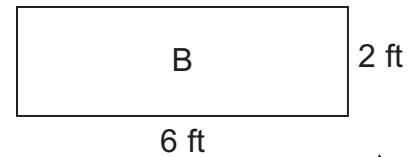
5. larger square  
\_\_\_\_\_

6. smaller square \_\_\_\_\_

7. rectangle \_\_\_\_\_

8. Which shape is similar to shape C?  
\_\_\_\_\_

9. Name the ray. \_\_\_\_\_



Measure to the quarter-inch.

10. \_\_\_\_\_ inches \_\_\_\_\_



Pastor Mike needed to replace some broken fence railings around the mission. He got a permit to cut some long, thin trees from a nearby forest. He estimated that each tree weighed 200 pounds. Jeremy, Davidson, and Pastor Mike loaded 9 trees onto a trailer. What did the load weigh?

\_\_\_\_\_

My Work Space

12. The bark had to be peeled off the trees before they could be used for fence rails. Kayleb spent  $\frac{3}{4}$  hours peeling the bark off some of the trees. Brendon spent  $\frac{2}{4}$  hours peeling off bark. How much more time did Kayleb work on this job than Brendon?
- \_\_\_\_\_

My Work Space

Cricket can be used to determine the temperature. The temperature in degrees Fahrenheit is equal to 40 plus the number of cricket chirps in 14 seconds.

Write the decimals.

13. twenty-five and two-tenths \_\_\_\_\_
14. thirty-seven hundredths \_\_\_\_\_
15. nine and nine-tenths \_\_\_\_\_
16. six and seven-hundredths \_\_\_\_\_

Skill Builders  $+$   $-$   $\times$   $\div$

Write the remainder in 18b as a fraction. Write the remainder in 18c as a whole number.

17. a.  $\begin{array}{r} 46 \\ \times 40 \\ \hline \end{array}$       b.  $\begin{array}{r} 70.3 \\ 69.2 \\ 58.1 \\ + 47.0 \\ \hline \end{array}$       c.  $\begin{array}{r} 937.81 \\ - 60.45 \\ \hline \end{array}$       d.  $\begin{array}{r} 8.54 \\ - 2.17 \\ \hline \end{array}$       e.  $\begin{array}{r} 64 \\ \times 43 \\ \hline \end{array}$

18. a.  $6 \overline{)72}$

b.  $7 \overline{)641}$

Check

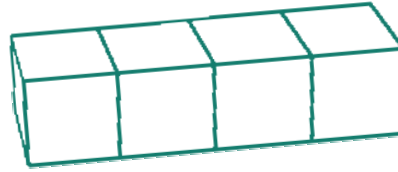
c.  $5 \overline{)79}$

Check

## Lesson 4

Find the volume.

19. \_\_\_\_\_  $\text{cm}^3$



Write each digit beside its correct place value.

\$4,679.31

20. a. \_\_\_\_\_ ones

b. \_\_\_\_\_ hundredths

c. \_\_\_\_\_ tens

21. a. \_\_\_\_\_ tenths

b. \_\_\_\_\_ hundreds

c. \_\_\_\_\_ thousands

Circle the numbers that have 8 as a factor.

Underline those that have 7 as a factor.

22. 24      49      72      56      36      64      14

Circle the numbers that have 6 as a factor.

Underline those that have 4 as a factor.

23. 24      17      40      16      31      36      12

Write the first ten multiples of 11.

24. \_\_\_\_\_

Continue the time patterns.

25. 10:00      10:30      11:00      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

26. 9:00      10:00      11:00      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

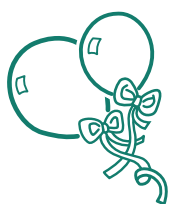
Circle the improper fraction.

27.  $\frac{1}{2}$        $\frac{4}{6}$        $\frac{10}{6}$





Tell your teacher when you are ready for Quiz 1.



## Just for Fun

### Trace the Pattern

Trace the correct path from start to finish by following this pattern:  
Add 3, subtract 1, add 3, subtract 1, . . .

|         |    |    |    |    |    |          |
|---------|----|----|----|----|----|----------|
| 15      | 14 | 17 | 16 | 19 | 18 | → Finish |
| 12      | 13 | 10 | 11 | 5  | 13 |          |
| 14      | 2  | 9  | 8  | 8  | 7  |          |
| 7       | 5  | 6  | 4  | 10 | 12 |          |
| 5       | 4  | 7  | 5  | 6  | 3  |          |
| 2       | 1  | 8  | 2  | 8  | 7  |          |
| ↑ Start |    |    |    |    |    |          |