Solve.

Solve.

Show your work.

- **13.** A tortoise walks 27 miles in a year. At this rate, how many miles will this tortoise walk in 10 years?
- **14.** If the tortoise lives to be 100 years old, how many miles will it walk during its lifetime?
- **15.** Every month, Paolo earns \$40 for walking his neighbor's dog after school. How much does he earn from this job in one year?
- **16.** There are 60 seconds in a minute and 60 minutes in an hour. How many seconds are there in an hour?
- **17.** An elephant eats about 2,500 pounds of food in 10 days. About how much food does an elephant eat in 1,000 days?

Write the multiplier or divisor for each pair of equivalent fractions.

1.
$$\frac{4}{5} = \frac{12}{15}$$

2.
$$\frac{25}{60} = \frac{5}{12}$$

3.
$$\frac{12}{20} = \frac{3}{5}$$

4.
$$\frac{2}{3} = \frac{20}{30}$$

5.
$$\frac{27}{36} = \frac{3}{4}$$

6.
$$\frac{1}{8} = \frac{7}{56}$$

Solve.

- 7. Jordan shoots 100 3-point shots per basketball practice. She makes 44 of these shots. What decimal represents the number of shots she makes?
- 8. At a county fair, 9 people out of 1,000 earned a perfect score in a carnival game. What decimal represents the number of people who earned a perfect score?

Solve.

9.
$$\frac{1}{6} \cdot 60 =$$

10.
$$\frac{1}{3} \cdot 21 =$$

11.
$$\frac{1}{9}$$
 of 81 = _____

12.
$$\frac{1}{3} \cdot 24 =$$

13.
$$\frac{1}{5}$$
 of 60 = _____

14.
$$\frac{1}{8} \cdot 16 =$$

15. Stretch Your Thinking Using a multiple of ten for at least one factor, write an equation with a product that has four zeros.

Solve.

The table shows the sizes of Farmer Reuben's fields. Use the table and a separate sheet of paper to help you answer each question.

	Corn Field	400 feet by 60 feet	
	Wheat Field	700 feet by 200 feet	
	Barley Field	200 feet by 200 feet	

- 10. What is the area of the corn field?
- 11. What is the area of the wheat field?
- 12. What is the area of the barley field?
- **13.** How many square feet of land did Farmer Reuben plant in all?

Compare.

1.
$$\frac{5}{8}$$
 \bigcirc $\frac{5}{7}$

2.
$$\frac{3}{4}$$
 $\bigcirc \frac{5}{6}$

3.
$$\frac{9}{10}$$
 \bigcirc $\frac{8}{9}$

4.
$$\frac{3}{8}$$
 \bigcirc $\frac{5}{8}$

5.
$$\frac{1}{7}$$
 \bigcirc $\frac{1}{8}$

6.
$$\frac{4}{5}$$
 \bigcirc $\frac{4}{7}$

Multiply.

7.
$$\frac{5}{6} \cdot 36 =$$

8.
$$\frac{1}{8} \cdot 40 =$$

9.
$$\frac{2}{5} \cdot 60 =$$

10.
$$\frac{2}{3} \cdot 33 =$$

11.
$$\frac{3}{4} \cdot 36 =$$

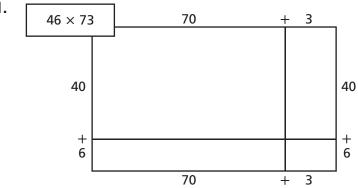
12.
$$\frac{2}{9} \cdot 45 =$$

Solve.

19. Stretch Your Thinking Explain how to predict the number of zeros in the product for the expression 600 • 500.

Solve the first problem with Place Value Sections. Solve the other problems using any method you like. Use a separate sheet of paper.

1.



2. 84 × 19

3. 67 × 53

4. 91 × 28

Solve.

Show your work.

- **5.** Kamini needs to know the area of her yard so that she can buy the right amount of grass seed. The yard is 26 feet by 19 feet. What is the area of Kamini's yard in square feet?
- **6.** A restaurant has 16 crates of juice. Each crate holds 12 gallons of juice. How many gallons of juice are there altogether?
- **7.** Mr. Jackson is taking 23 students to see a movie. Tickets for the movie cost 75 cents. How much money will Mr. Jackson spend on student tickets?
- 8. There are usually 20 school days in a month. Grace has band practice for 60 minutes every day after school. How many minutes does she usually practice each month?

UNIT 4 LESSON 3

Compare. Write > (greater than) or < (less than).

1. 0.7 0.71

- **2.** 0.2 0.02
- **3.** 0.76 0.68

- **4.** 0.31 0.43
- **5.** 0.21 0.12
- **6.** 0.346 0.348

Estimate the sum or difference by rounding each mixed number to the nearest whole number. Then find the actual sum or difference.

7. $2\frac{1}{8} + 6\frac{6}{7}$

Estimate: _____

Sum: _____

8. $7\frac{9}{10} - 4\frac{1}{9}$

Estimate: _____

Difference: _____

9. $5\frac{7}{8} - 1\frac{1}{10}$

Estimate: _____

Difference:

10. $6\frac{3}{8} + 7\frac{2}{5}$

Estimate: _____

Sum: _____

Multiply.

11. 80 × 60

12. 200 × 30

13. 400 × 40

14. 600 × 50

15. 500 × 10

- **16.** 300 × 90
- **17. Stretch Your Thinking** Explain how to check multiplication using addition or division. Include an example in your explanation.

Solve. Use any method.

The table shows how many newspapers are delivered each week by three paper carriers.

Use the table to answer the questions.

Use 1 year = 52 weeks.

Papers Delivered Each Week

Jameel	93
Clare	97
Mason	98

5. How many papers does Jameel deliver in a year?

Show your work.

- 6. How many papers does Clare deliver in a year?
- 7. How could you find how many papers Mason delivers in a year without doing any multiplication? What is the answer?

Solve.

- **8.** Ray needs to know the area of his floor so he can buy the right amount of carpet. The floor is 21 feet by 17 feet. What is the area of the floor?
- **9.** Maria is buying flowers. Each tray of flowers costs \$24. If she buys 15 trays, what will the total cost be?

Copy each exercise. Then subtract.

1.
$$9,000 - 865 =$$

Multiply. You do not need to simplify.

4.
$$\frac{5}{7} \cdot \frac{1}{3} =$$

5.
$$\frac{3}{5} \cdot \frac{1}{5} =$$

6.
$$\frac{1}{5} \cdot \frac{2}{7} =$$

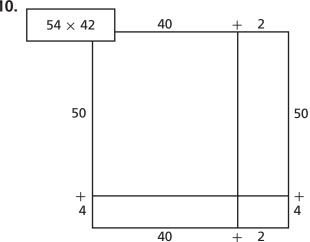
7.
$$\frac{2}{3} \cdot 5 =$$

8.
$$\frac{3}{4} \cdot \frac{3}{4} =$$

9.
$$\frac{1}{2} \cdot \frac{5}{9} =$$

Solve the first problem with Place-Value Sections. Solve the other problems using any method you like.

10.



11. 15 \times 42 12. 65 \times 81

- 13. 48 \times 24
- 14. Stretch Your Thinking How is multiplying a 1-digit number and a 2-digit number the same as, and different from, multiplying two 2-digit numbers?

Multiply.

Solve.

- **17.** Jamal is building a bed for his dog. The dimensions of the bed are 27 inches by 36 inches. What is the area of the bottom of the bed?
- **18.** Mr. Battle drives 9 miles to work every day. He works 5 days a week. How many miles does he travel to and from work over 52 weeks?

Add or subtract.

1.
$$3\frac{3}{4} + 2\frac{1}{8}$$

2.
$$4\frac{1}{5}$$
 $-2\frac{3}{10}$

3.
$$5\frac{2}{5}$$
 + $3\frac{1}{3}$

4.
$$6\frac{5}{6}$$
 $+ 2\frac{5}{12}$

5. 10
$$-2\frac{3}{5}$$

6.
$$3\frac{2}{5}$$
 $+ 1\frac{1}{15}$

Find each product by first rewriting each mixed number as a fraction.

7.
$$\frac{2}{9} \cdot 2\frac{2}{3} =$$

8.
$$1\frac{3}{5} \cdot 10 =$$

9.
$$4\frac{1}{4} \cdot 1\frac{1}{3} =$$

10.
$$2\frac{2}{5} \cdot \frac{3}{7} =$$

Solve. Use any method.

17. Stretch Your Thinking Explain how to use mental math to find the product of 64 and 25.

Solve.

Three runners started making a table for April to show how far they run every day, every week, and the entire month.

Show your work.

16. Finish the table for the runners.

Runner	Miles Per Day	Miles Per Week	Miles in April
Cedric	0.6	7 × 0.6 =	30 × 0.6 =
Shannon	2.4		
Regina	1.75		

17. Give the total miles in May for each runner below.

Cedric: Shannon: Regina:

Add.

1.
$$\frac{2}{7} + \frac{1}{5}$$

2.
$$\frac{1}{3} + \frac{2}{5}$$

3.
$$\frac{1}{3} + \frac{1}{8}$$

4.
$$\frac{1}{2} + \frac{1}{5}$$

5.
$$\frac{4}{5} + \frac{1}{6}$$

6.
$$\frac{5}{8} + \frac{1}{10}$$

Copy each exercise. Then add.

8.
$$0.23 \text{ m} + 0.54 \text{ m} =$$
 9. $33 \not c + \$11 =$

Multiply.

14. Stretch Your Thinking Marissa bought four bottles of water. Each bottle of water was 95 cents. Write an equation with the same product as the total cost but different factors.

Solve.

6.
$$0.05 \times 0.9 =$$

Solve using mental math.

15.
$$82 \times 0.01 =$$
 16. $385 \times 0.1 =$ **17.** $2,194 \times 0.01 =$ **19.** $2,194 \times 0.01 =$ **19.**

Solve.

- **18.** Simon sold bottles of water at the marathon on Saturday for \$0.75 per bottle. He sold 43 bottles. How much money did he earn?
- **19.** Lauren has 9.9 meters of ribbon. She is cutting it into 100 equal pieces. That is the same as multiplying 9.9 by 0.01. How long will each piece of ribbon be?
- **20.** A furlong is a unit of measure used in horse racing. Every year, horses race 10 furlongs in the Kentucky Derby. One furlong is equal to 0.125 mile. How long is the Kentucky Derby in miles?

Use the Distributive Property to rewrite each problem so it has only two factors. Then solve.

1.
$$(7 \times 200) + (7 \times 800) =$$

2.
$$(44 \times 3) + (56 \times 3) =$$

Multiply. Simplify first if you can.

3.
$$\frac{5}{8} \cdot \frac{6}{7} =$$

4.
$$\frac{1}{5} \cdot \frac{2}{9} =$$

5.
$$\frac{1}{2} \cdot \frac{4}{9} =$$

6.
$$\frac{2}{3} \cdot \frac{15}{16} =$$

7.
$$\frac{1}{8} \cdot \frac{6}{7} =$$

8.
$$\frac{9}{10} \cdot \frac{5}{6} =$$

Solve.

15. Stretch Your Thinking Explain where to place the decimal point in the product for the expression $0.5 \cdot 0.03$.

Solve.

Complete. Name the property used.

13.
$$(4.3 \times 6.2)$$
 – (_____ × 1.1) = $4.3 \times (6.2 - 1.1)$

14.
$$8.9 \times (5.3 \times 3.4) =$$
 $(8.9 \times \underline{\hspace{1cm}}) \times 3.4$

Solve.

- **15.** Lester's car can go 15.4 miles on 1 gallon of gas. How far can he go on 0.7 gallon?
- **16.** Clara wants to cover the top of her jewelry box. The top of the box is a rectangle with a length of 9.4 cm and a width of 8.3 cm. What is the total area she wants to cover?

Solve. Explain how you know your answer is reasonable.

Show your work.

1. A rectangular sand box has a length of $5\frac{1}{3}$ feet and a width of $3\frac{3}{4}$ feet. What is its perimeter?

Answer: _____

Why is the answer reasonable?

Solve.

Show your work.

- 2. Kelly babysits for $5\frac{5}{6}$ hours on the weekend. This is $2\frac{1}{12}$ hours more than she babysits during the week. How many hours does she babysit during the week?
- 3. Lucas is making a recipe that requires $\frac{1}{4}$ cup of wheat flour and $1\frac{7}{8}$ cups of white flour. Altogether, how may cups of flour does the recipe require?

Solve.

9.
$$0.07 \times 0.7$$

10. Stretch Your Thinking Write a decimal equation that has a product of 3.15. (Do not use 1 as a factor.)

Solve.

Complete the equations.

9.
$$0.7 \times 10^1 =$$

10.
$$0.98 \times 10^1 =$$

11.
$$5.63 \times 10^1 =$$

$$0.7 \times 10^2 =$$

$$0.98 \times 10^2 =$$

$$0.7 \times 10^3 =$$

$$0.98 \times 10^3 =$$

$$5.63 \times 10^3 =$$

12.
$$3.7 \times 10^1 =$$

13.
$$2.04 \times 10^1 =$$

$$3.7 \times 10^2 =$$

$$0.42 \times 10^2 =$$

$$2.04 \times 10^3 =$$

$$0.42 \times 10^3 =$$

Solve.

Show your work.

- **15.** The Sunrise Café gets tea bags in boxes of 1,000. If the café charges \$1.75 for each cup of tea, and each cup of tea gets one tea bag, how much money does the café receive if they use a whole box of 1,000 teabags?
- **16.** If a box of tea bags costs \$95, how much money does the café actually make after they have used up the box of tea and have paid for it?

Add or subtract.

1.
$$10 - 3\frac{3}{4}$$

2.
$$\frac{5}{8} + \frac{3}{8}$$

3.
$$6\frac{4}{5} - 1\frac{1}{5}$$

4.
$$2\frac{1}{3} + 5\frac{1}{3}$$

5.
$$1\frac{2}{9} + 3\frac{5}{9}$$

6.
$$5\frac{1}{2} - \frac{1}{2}$$

Copy each exercise. Then add or subtract.

Solve.

13. Stretch Your Thinking Complete the equation $8.9 \cdot \square = 8,900$ using a power of ten. Explain how the product will change if the exponent changes.

Round to the nearesth tenth.

Round to the nearest hundredth.

Write an estimated answer for each problem.

Then find and write each exact answer.

Estimated Answer

$$8.1 \times 4.2 =$$

$$7.65 \times 0.9 =$$

$$3.8 \times 6.02 =$$

Solve.

Show your work.

14. A factory makes 394 motorcycles each week. If there are 52 weeks in a year, how many motorcycles will the factory make in a year?

Estimate: _____

Exact answer: _____

15. CDs are \$15.25 each. How much will it cost to buy 3?

Estimate: _____

Exact answer: _____

Round to the nearest whole number.

Round to the nearest tenth.

Write an equation. Then solve.

Show your work.

- **7.** A rectangle has an area of 48 square feet and a length of 10 feet. What is its width?
- **8.** A length of string that is 22 feet long is being cut into pieces that are $\frac{1}{3}$ foot long. How many pieces will there be?

Solve.

15. Stretch Your Thinking Taylor estimated the music department would raise \$1,100 for new uniforms by selling tickets to a performance next week. Each ticket will be \$12.75. About how many tickets does the music department need to sell for Taylor's estimate to be reasonable?

Find each product.

Solve. Check that your answers are reasonable.

Show your work.

- **9.** Josefina is buying 10 pounds of salmon which costs \$6.78 per pound. How much will the salmon cost?
- 10. It is 9.2 miles between Mr. Rossi's place of work and his home. Because he comes home for lunch, he drives this distance 4 times a day. How far does Mr. Rossi drive each day?
- **11.** Mr. Rossi works 20 days a month. How far does he drive in a month?
- **12.** Gayle is saving to buy a bicycle. The bicycle costs \$119.90. She has saved 0.7 of what she needs. How much has she saved so far?

Multiply.

4.
$$3,147 \cdot 4 =$$
 5. $5,609 \cdot 2 =$ **6.** $66 \cdot 75 =$

Write your answers as fractions.

7.
$$\frac{2}{9} \cdot 5 =$$

8.
$$\frac{3}{4} \cdot 9 =$$

9.
$$\frac{2}{3} \cdot 7 =$$

10.
$$\frac{7}{12} \cdot 15 =$$

11.
$$\frac{5}{8} \cdot 3 =$$

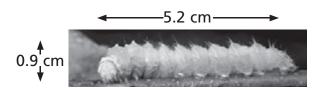
12.
$$\frac{5}{6} \cdot 9 =$$

Round to the nearest tenth.

Round to the nearest hundredth.

19. Stretch Your Thinking Write a multiplication word problem using decimals for both factors. Then solve your word problem.

The life cycle of a butterfly has four stages. One stage is a caterpillar



Using the length and height of the caterpillar shown, use the descriptions below to draw the adult butterfly that develops from the caterpillar. Remember, a tenth of a centimeter is a millimeter.

- ▶ The length of your butterfly should be 3.6 times the height of the caterpillar.
- ▶ The wingspan of your butterfly should be 1.75 times the length of the caterpillar.

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Write a decimal number for each word name.

1. six hundredths

2. fourteen and eight thousandths

3. nine thousandths

4. five tenths

Solve.

5.
$$\frac{1}{2} \div 10 =$$

6.
$$\frac{1}{5} \cdot 4 =$$

7.
$$12 \cdot \frac{1}{4} =$$

8.
$$\frac{1}{9} \div 3 =$$

9.
$$\frac{2}{3} \cdot \frac{2}{5} =$$

10.
$$3 \div \frac{1}{6} =$$

Find each product.

17. Stretch Your Thinking Sarah is stringing insect beads to make a bracelet. The butterfly bead is 0.45 inch long and the ladybug bead has a length of 0.27 inch. She uses each type of insect bead and places them end to end. How many of each type of bead does she use to make a line of insect beads measuring 1.71 inches?