**Write an equation and use it to solve the problem.
Draw a model if you need to.**

Show your work.

1. Two professional baseball teams played a four-game series. Attendance for the first three games was 126,503 people, What was the Game 4 attendance if 171,318 people altogether attended the series?

   _____

2. In the past, shares of stock were bought and sold in fractions of a dollar. Suppose one share of stock, purchased for $72\frac{1}{4}$ dollars per share, decreased in value to $66\frac{3}{8}$ dollars per share. What was the decrease in value per share?

   _____

3. Two shipping containers are being loaded into the cargo hold of a ship. One container weighs 2.3 tons. What is the weight of the other container if the total weight of both containers is 4.15 tons?

   _____

4. The heights of horses are often measured in units called hands. Abigail's pony is $13\frac{1}{4}$ hands tall. How much taller is Jermaine's horse if it is $16\frac{1}{2}$ hands tall?

   _____

5. Jake plays baseball with two wooden bats—one made from hickory and one made from white ash. What is the weight of his white ash bat if his hickory bat weighs 32.4 ounces, and both bats together weigh 64.33 ounces?

   _____

6. Seventeen fewer people attended the second basketball game of the season than attended the first game. One hundred ninety-two people attended the second game. How many people attended the first game?

   _____

Add or subtract.

1. $4\frac{1}{8} + 1\frac{5}{8} =$

2. $4\frac{3}{5} + 6\frac{1}{5} =$

3. $6\frac{2}{3} - 5\frac{1}{3} =$

4. $7 - 1\frac{1}{2} =$

5. $8\frac{3}{4} - 2\frac{3}{4} =$

6. $\frac{2}{7} + \frac{4}{7} =$

7. $\quad 15$
$\quad -\; 3\frac{1}{7}$
___

8. $\quad 5\frac{4}{5}$
$\quad +\; 1\frac{1}{8}$
___

9. $\quad 11\frac{1}{5}$
$\quad -\; 9\frac{3}{4}$
___

10. $\quad 1\frac{5}{6}$
$\quad +\; \frac{1}{3}$
___

11. $\quad 2\frac{2}{3}$
$\quad +\; 7\frac{5}{9}$
___

12. $\quad 6\frac{3}{7}$
$\quad +\; 1\frac{1}{14}$
___

Copy each exercise. Then subtract.

13. $12{,}389 - 2.75 =$

_____

14. $165.98 - 127.2 =$

_____

15. $326.55 - 23.81 =$

_____

16. Stretch Your Thinking Garrett wants to buy a new soccer ball, a pair of shorts, and a pair of soccer shoes. The ball costs $12.55, the shorts cost $22.98, and the shoes cost $54.35. Garrett has $85.00. How much more money does Garrett need? Write an equation to solve the problem.

_____

_____

Name _____ **Date** _____

Solve each problem. Draw a model if you need to.

Show your work.

1. Spectators for a high school football game sit in bleachers along one side of the field. Altogether, the bleachers seat 1,152 spectators in 16 rows of equal length. How many spectators can be seated in one row of the bleachers?

   _____

2. How many periods of time, each $\frac{1}{3}$ of an hour long, does a 8-hour period of time represent?

   _____

3. The area of a rectangular ceiling is 130.5 square feet, and one measure of the ceiling is 14.5 feet. What is the other measure of the ceiling?

   _____

4. Sorbet is a frozen dessert that is often made from fruit. How many portions, each weighing $\frac{1}{10}$ of a kilogram, can a French dessert chef create from 3 kilograms of sorbet?

   _____

5. The family room floor in Zack's home has a rectangular area rug that measures 6.5 feet by 9 feet. The floor is rectangular and measures 10 feet by 12 feet. What area of the floor is not covered by the rug?

   _____

6. A cargo van is carrying 20 identical steel cylinders. Each cylinder contains compressed oxygen. Altogether, the cylinders weigh $\frac{1}{2}$ of a ton.

   a. In tons, what is the weight of each cylinder?

   _____

   b. One ton = 2,000 pounds. In pounds, what is the weight of each cylinder?

   _____

Name _____   **Date** _____

Remembering

Multiply.

1. $\frac{6}{7} \cdot 42 =$ _____

2. $\frac{1}{3} \cdot 36 =$ _____

3. $\frac{4}{5} \cdot 15 =$ _____

4. $\frac{1}{4} \cdot 28 =$ _____

5. $\frac{5}{9} \cdot 81 =$ _____

6. $\frac{3}{8} \cdot 72 =$ _____

Write an equation. Then solve.   *Show your work.*

7. There is $\frac{1}{4}$ of a peach pie left after a family picnic. Four cousins share the leftover pie equally. What fraction of a whole pie will each cousin receive?

_____

8. Tully has 24 stamps in his collection. This is $\frac{1}{3}$ times the number Jordan has. How many stamps does Jordan have?

_____

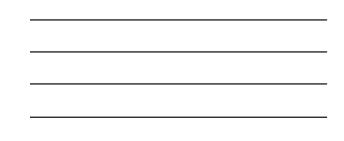**Write an equation to solve the problem. Draw a model if you need to.**

9. Candace jumped 11.45 feet in a long jump competition. What is the length of Maria's jump if she jumped 1.05 fewer feet than Candace?

_____

10. **Stretch Your Thinking** Ms. Jackson has $97.00 to spend on games for her classroom. She buys six board games that cost $11.95 each and a video game that costs $24.10. How much money does Ms. Jackson have left to buy more games? Write an equation to solve the problem.

_____

_____

Write a word problem for the equation.
Draw a model to show the product.

Show your work.

1. $\frac{2}{3} \cdot 3 = \frac{6}{3}$

_____

_____

_____

_____

_____

2. $\frac{3}{4} \cdot \frac{1}{2} = \frac{3}{8}$

_____

_____

_____

_____

_____

3. $2 \div \frac{1}{4} = 8$

_____

_____

_____

_____

_____

Remembering

Complete each fraction box.

1.

$\frac{3}{4}$ and $\frac{5}{6}$	
>	
+	
−	
·	

2.

$\frac{3}{5}$ and $\frac{8}{15}$	
>	
+	
−	
·	

Solve.

Show your work.

3. A \$1,508 award is shared equally by 8 people. What is each person's share of the award?

_____

4. Felipe has 54 coins in his collection. His brother Pedro has 1,269 coins. The number of coins Pedro has is how many times the number his brother has?

_____

Write an equation to solve the problem. Draw a model if you need to.

5. How many periods of time, each $\frac{1}{6}$ of an hour long, does a 10-hour period of time represent?

_____

6. Stretch Your Thinking Write a word problem for the following equation. $\frac{4}{5} \cdot \frac{1}{4} + \frac{3}{5} = \frac{4}{5}$

_____

_____

_____

_____

Name _____ **Date** _____

Write an equation to solve the problem. Use mental math or estimation to show that your answer is reasonable.

Show your work.

1. In a speed test, a computer took 12.4 seconds to complete one task, and 37.8 seconds to complete a more difficult task. How much time was needed to complete both tasks?

Equation: _____

Estimate: _____

_____

2. To walk to school, Pablo first walks $\frac{1}{2}$ kilometer to Tanya's house. Then Pablo and Tanya walk $\frac{3}{5}$ kilometer to school. How far does Pablo walk to school?

Equation: _____

Estimate: _____

_____

3. Each Saturday morning, Andy works 4 hours and earns $34. At that rate, what does Andy earn for each hour he works?

Equation: _____

Estimate: _____

_____

4. Yuri completed a race in 0.88 fewer seconds than Josie. Josie's time was 23.95 seconds. How long did it take Yuri to complete the race?

Equation: _____

Estimate: _____

_____

_____

![Remembering]

Write an estimated answer for each problem. Then find and write each exact answer.

Estimated Answer	**Exact Answer**

1. $41 \times 77 \approx$ _____ $\times$ _____ $\approx$ _____ $41 \times 77 =$ _____

2. $3.8 \times 1.9 \approx$ _____ $\times$ _____ $\approx$ _____ $3.8 \times 1.9 =$ _____

3. $7.3 \times 5.01 \approx$ _____ $\times$ _____ $\approx$ _____ $7.3 \times 5.01 =$ _____

Divide.

4. $45\overline{)6{,}733}$ **5.** $61\overline{)7{,}892}$ **6.** $28\overline{)3{,}123}$

Write a word problem for the equation. Draw a model to show the product.

7. $\dfrac{5}{6} \cdot 4 = \dfrac{20}{6}$

_____

_____

_____

_____

_____

8. Stretch Your Thinking Kaley has $2\dfrac{3}{8}$ yards of fabric. She cuts and uses $1\dfrac{1}{16}$ yards from the fabric. She estimates that less than 1 yard of fabric is left over. Is her estimate reasonable? Explain.

_____

_____

_____

Name _____ Date _____

Solve each problem.   *Show your work.*

1. Michael has 21 T-shirts. One third of them are blue. How many of Michael's T-shirts are blue?

   _____

2. There are 476,092 fish in the city aquarium. That number of fish is 476,070 more fish than Nadia has in her aquarium. How many fish does Nadia have in her aquarium?

   _____

3. Anne-Marie has saved 9 dollars for a new coat. That is $\frac{1}{6}$ as much money as she needs. How much does the coat cost?

   _____

4. Last year it rained on 63 days in Mudville. There were 7 times as many days of rain in Mudville as in Desert Hills. How many days did it rain in Desert Hills last year?

   _____

5. Maria wants to buy a new car. She will choose a green car or a silver car. The green car costs $16,898, and the silver car costs $1,059.75 less than the green car. What is the cost of the silver car?

   _____

6. At a country-music concert, 48 people played guitars. That number is 6 times as many as the number of people who played banjos. How many people at the concert played banjos?

   _____

7. There are 8 apples left on the table. There are $\frac{1}{4}$ as many apples as bananas left on the table. How many bananas are there?

   _____

Remembering

Add or subtract.

1. $6\frac{6}{7}$
      $+ 2\frac{3}{14}$

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

3. $12\frac{4}{5}$
      $- 8\frac{5}{10}$

4. 11
      $- 5\frac{5}{11}$

5. $7\frac{1}{5}$
      $+ 1\frac{2}{3}$

6. $9\frac{3}{4}$
      $+ 2\frac{5}{6}$

7. Use the number line to find $\frac{2}{3} \cdot \frac{4}{5}$.

Label all the parts above and below. _____

```
0                                                    1
├──────────────────────────────────────────────────┤
```

Write an equation to solve the problem. Use mental math or estimation to show that your answer is reasonable.

8. Terrell runs two timed drills at practice. The first drill takes 33.5 seconds and the second drill takes 28.2 seconds. How much time does it take him to complete both drills?

Equation: _____

Estimate: _____

_____

_____

9. Stretch Your Thinking Maverick has a $12\frac{3}{4}$-foot-long streamer to decorate a hallway at his school. He cuts off $\frac{3}{8}$ of a foot from each end to make it fit the hallway. His principal asks him to make another streamer that is $\frac{5}{6}$ as long. How long is the new streamer?

_____

Solve. Draw a model if you will find it helpful.

1. A flagpole flying the Ohio state flag is $\frac{9}{10}$ the height of a 30-foot-tall flagpole that is flying the U.S. flag. What is the height (h) in feet of the flagpole flying the Ohio state flag?

   _____

2. The number of students in the Period 7 study hall at Jin's school is 4 times the number of students in Jin's home room. How many students (s) are in the study hall if there are 16 students in Jin's home room?

   _____

3. The enrollment at Roosevelt High School is 1,045 students, which is 5 times the enrollment of Truman Middle School. How many students (s) are enrolled at Truman Middle School?

   _____

4. A truck weighs 5,400 pounds. An open-wheel race car weighs $\frac{1}{4}$ as much. How much does the race car weigh?

   _____

5. Owen and Maya each studied for a test. Owen studied for 90 minutes and Maya studied for 0.5 times that length of time. Who studied more? Multiply to check your prediction.

   Prediction: _____

6. Sonia's family has 2 children, which is $\frac{2}{3}$ the number of children in Zeke's family. Which family has more children? Divide to check your prediction.

   Prediction: _____

Remembering

Copy each exercise. Then add or subtract

1. $22.09 - 17 =$ _____

2. $7 - 0.05 =$ _____

3. $4.07 - 0.3 =$ _____

4. $44 + 5.06 =$ _____

5. $0.07 + 0.8 =$ _____

6. $0.55 + 0.31 =$ _____

Solve.

7. $0.5 \times 0.04 =$ _____

8. $0.3 \times 0.7 =$ _____

9. $0.07 \times 0.2 =$ _____

10. $\begin{array}{r} 0.46 \\ \times\ \ 80 \\ \hline \end{array}$

11. $\begin{array}{r} 0.06 \\ \times\ \ 0.8 \\ \hline \end{array}$

12. $\begin{array}{r} 3.2 \\ \times\ \ 9 \\ \hline \end{array}$

Solve each problem.   *Show your work.*

13. A soccer team has 35 soccer balls. One fifth of the balls are made of leather. How many of the balls are leather?

_____

14. There are 56 fifth graders who play basketball. That is 7 times the number of fifth graders who play tennis. How many fifth graders play tennis?

_____

15. **Stretch Your Thinking** Samantha draws a hopscotch diagram on the sidewalk in front of her house. The diagram is 10 feet long. Her neighbor asks her to draw a 4-foot hopscotch diagram on a canvas mat. In simplest form, what fraction of the length of Samantha's diagram is her neighbor's diagram?

_____

Homework

Write an equation and use it to solve the problem. Draw a model it you need to.

Show your work.

1. The Yukon River is 1,980 miles long, and twice as long as the Platte River. How many miles long *(l)* is the Platte River?

   _____

2. The height of the Empire State Building in New York City is 1,250 feet, and 364 fewer feet than the height of the World Financial Center building in Shanghai, China. What is the height *(h)* of the World Financial Center building?

   _____

3. Olivia is 48 inches tall, and $\frac{2}{3}$ as tall as her brother Cameron. In inches, how tall *(t)* is Cameron?

   _____

4. Sydney is shopping for a new television. The cost of a 32-inch LCD flat screen is $149.95. The cost of 46-inch LED flat screen is $280.04 more. What is the cost *(c)* of the 46-inch LED flat screen television?

   _____

5. After arriving home from school, Luis read for $\frac{1}{3}$ of an hour. If he reads for $1\frac{1}{6}$ hours after dinner, how many hours *(h)* will Luis have read altogether?

   _____

6. Each morning, Jared needs 60 minutes to get ready for school. Kiara needs $\frac{7}{12}$ as much time as Jared. How many minutes does Kiara need each morning to get ready for school?

   _____

7. When compared to Tasha, Liam spent 20 additional minutes doing homework. Liam took 45 minutes to complete his homework. How long did it take Tasha?

   _____

Types of Comparison Problems **133**

Name _____ Date _____

Solve.

1.   6.9
        × 4.2

2.   7.3
        × 0.90

3.   5.8
        × 0.54

4.   5.3
        × 0.08

5.   0.7
        × 6.25

6.   9.4
        × 1.7

Divide.

7. $0.05\overline{)4.5}$

8. $0.3\overline{)1.5}$

9. $0.04\overline{)2.32}$

10. $0.64\overline{)4.928}$

11. $0.6\overline{)5.43}$

12. $0.08\overline{)4.32}$

Solve. Draw a model if you will find it helpful.

13. The gymnasium at Audubon Middle School is $\frac{5}{6}$ the height of a 30-foot-tall building that is next to the gymnasium. What is the height (h) in feet of the gymnasium?

_____

14. Amiee's karate instructor has 595 students. That is 5 times the number of students that her dance instructor has. How many students does her dance instructor have?

_____

15. Stretch Your Thinking Draw a model that shows $5 \cdot \frac{3}{5} = 3$.

_____

Types of Comparison Problems

Homework

Solve each problem if possible. If a problem does not have enough information, write the information that is needed to solve the problem.

Show your work.

1. At the school bookstore, Quinn purchased a binder for $4.75 and 4 pens for $0.79 each. What was Quinn's total cost (*c*)?

_____

2. A school bus has 12 rows of seats, and 4 students can be seated in each row. How many students (*s*) are riding the bus if 11 rows are filled with students, and 2 students are riding in the twelfth row?

_____

3. A group of 16 friends visited an amusement park. When they arrived, $\frac{3}{4}$ of the friends wanted to ride the fastest roller coaster first. How many friends (*f*) wanted to ride?

_____

4. Zeke is shipping clerk for a large business. Today he spent 90 minutes preparing boxes for shipping. One box weighed 10 pounds and 7 boxes each weighed $3\frac{1}{2}$ pounds. What is the total weight (*w*) of the boxes?

_____

5. A middle school faculty parking lot has 3 rows of parking spaces with 13 spaces in each row, and 1 row of 7 spaces. How many vehicles (*v*) can be parked in the faculty lot?

_____

6. Rochelle's homework always consists of worksheets. Last night, the average amount of time she needed to complete each worksheet was 15 minutes. How much time (*t*) did Rochelle spend completing worksheets last night?

_____

Remembering

Multiply.

1. 56
× 3

2. 256
× 7

3. 3,801
× 6

4. 4,239
× 9

5. 84
× 23

6. 67
× 18

7. 88
× 39

8. 42
× 45

Multiply or divide.

9. $0.67\overline{)502.5}$

10. $0.21\overline{)945}$

11. 0.55
× 0.30

12. 32.5
× 6.3

Write an equation and use it to solve the problem.
Draw a model it you need to.

13. Lindsay is shopping for a new CD player. The cost of
one CD player she is considering is $56.55. The cost of
a higher priced CD player is $14.25 more. What is the
cost (c) of the higher priced CD player?

_____

14. Stretch Your Thinking Use the equation below to write a
word problem. Leave out one piece of information that is
needed to solve the problem and describe the information
that should have been included. $b = (5 \cdot 6) + 10$

_____

_____

_____

_____

Equations and Parentheses

Name _____   Date _____

Solve each problem.   *Show your work.*

1. After a deposit of $100, a withdrawal of $125, and a deposit of $24, the balance in a savings account was $27.28. What was the balance (*b*) before the deposits and withdrawal?

   _____

2. The charge for a plumbing repair was $29.60 for parts, $1\frac{1}{4}$ hours for labor at $56 per hour, and a $40 for the service call. What was the total cost (*c*) of the repair?

   _____

3. Ebi, Jose, Derell, and Asami measured their heights. Ebi's height was 2.5 cm greater than Jose's height. Jose's height was 3.1 cm greater than Derell's height. Derell's height was 0.4 cm less than Asami's height. Ebi is 162.5 cm tall. How tall (*t*) is Asami?

   _____

4. A school bus has 22 rows of seats, and 4 students can be seated in each row. Students riding in the bus have filled 19 rows of seats, and $\frac{1}{2}$ of the remaining seats. How many seats on the bus are empty (*e*)?

   _____

5. Rosa is 13 years and 6 months old and her brother Malcolm is 11 years and 6 months old. Their great grandfather is 89 years old. How many years (*y*) older is the great grandfather than the combined ages of Rosa and Malcolm?

   _____

6. A riverfront business offers raft trips. The capacity of each raft is 4 people. Suppose 29 adults and 22 children would like to raft. If each raft is filled to capacity, how many people (*p*) will be aboard the last raft?

   _____

Name _____ **Date** _____

Remembering

Solve.

1. 500
× 60

2. 500
× 50

3. 900
× 40

4. 30
× 10

5. 200
× 70

6. 300
× 80

Complete each division. Check your answer.

7. 7)3,451

8. 4)2,155

9. 8)4,122

10. 5)1,242

11. 3)2,114

12. 9)5,778

Write and solve an equation to solve the problem. If the problem does not have enough information, write the information that is needed to solve the problem.

13. Danny has $14.75, Jason has $22.10, and Trey has $87.45. How much more money (m) does Trey have than the combined amounts of the other two boys?

Show your work.

_____

14. Stretch Your Thinking Write a multistep word problem in which the remainder is the solution. Write an equation that will solve it.

_____

_____

_____

_____

Multistep Word Problems

Solve each problem.

Show your work.
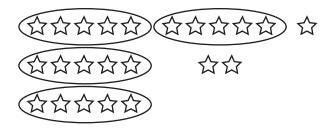
1. A savings account balance was $135.10 before a withdrawal of $60, a deposit of $22.50, and a withdrawal of $45. What was the balance *(b)* after the withdrawals and deposit?

   _____

2. The charge for a bicycle repair was $9.28 for parts, $\frac{1}{4}$ hour of labor at $18 per hour, and a $2 shop fee. What was the total cost *(c)* of the repair?

   _____

3. While shopping at the school bookstore, Ric purchased 4 book covers for $1.25 each, and a pen that cost $\frac{2}{5}$ as much as a book cover. What amount of change *(c)* did Ric receive if he paid for his purchase with a $10 bill?

   _____

4. A junior baseball team plays 16 games each summer. Last summer the team scored an average of 3.25 runs per game during the first half of the season. The team scored a total of 29 runs during the second half of the season. How many runs *(r)* were scored by the team last season?

   _____

5. Four family members compared their ages. Terell is 3 years younger than Danny. Danny is 1 year younger than Pablo. Pablo's age is $\frac{1}{3}$ Shaniqua's age. How old is Terell *(t)* if Shaniqua is 36 years old?

   _____

6. Twenty-four soccer players, four coaches, and one equipment manager are traveling to a game in minivans. The capacity each minivan is 6 people. How many people *(p)* are riding in the last minivan if the other minivans are filled to capacity?

   _____

Name _____ **Date** _____

Remembering

Multiply.

1.	495	2.	126	3.	2,689	4.	3,249
	× 7		× 6		× 3		× 8

5.	78	6.	68	7.	41	8.	92
	× 21		× 55		× 33		× 89

Divide.

9. $0.7\overline{)49}$ **10.** $0.03\overline{)18}$ **11.** $0.4\overline{)0.8}$

12. $0.09\overline{)27}$ **13.** $0.5\overline{)172.5}$ **14.** $0.06\overline{)8.4}$

Write an equation to solve the problem.

15. After a deposit of $250, a withdrawal of $312, and a deposit of $15, the balance in a savings account is $67.50. What was the balance (*b*) before the deposits and withdrawal?

_____

16. Stretch Your Thinking Write an equation that is represented by the following diagram.
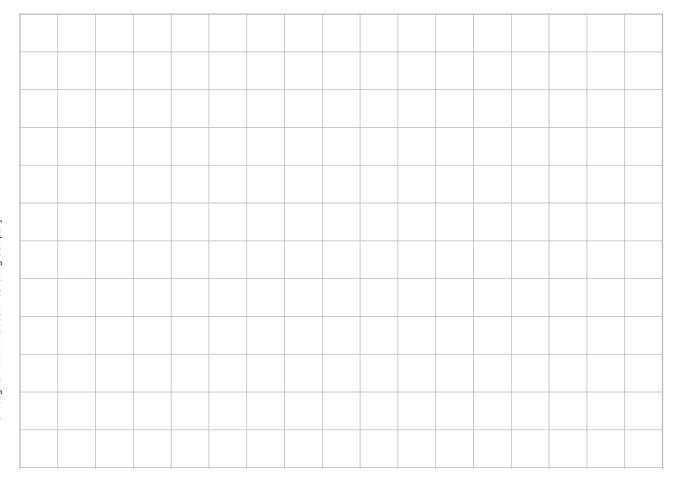

_____

Practice Problem Solving

Homework

The data below represent typical weights for five different breeds of adult male dogs. Make a bar graph to display the data. Choose an appropriate scale based on the weights of the dogs.

Type of Dog	Adult Weight (in pounds)
Labrador retriever	65.25
German shepherd	$75\frac{1}{4}$
golden retriever	72.8
boxer	$70\frac{1}{2}$
standard poodle	64.3

Remembering

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

1. 0.05 $\bigcirc$ 0.5   **2.** 0.61 $\bigcirc$ 0.6   **3.** 0.77 $\bigcirc$ 0.7

4. 0.34 $\bigcirc$ 0.43   **5.** 0.28 $\bigcirc$ 0.29   **6.** 0.981 $\bigcirc$ 0.978

Solve the problem.

7. The charge for skating is \$6.35 for skate rental, $1\frac{1}{3}$ hours
of skating at \$18 per hour, and an additional \$1 fee.
What is the total cost (c) for skating?

_____

8. Stretch Your Thinking Make a table that lists the
data from the bar graph.

Long Jump Lengths