Chapter 2

Name _____

Practice Multiplication and Division of Whole Numbers

Show What You Know

Meaning of Division **Use counters to solve.**

1. Divide 18 counters into 3 equal groups. How many counters are in each group?

_____ counters

2. Divide 21 counters into 7 equal groups. How many counters are in each group?

_____ counters

Multiply 3-Digit and 4-Digit Numbers **Multiply.**

3. $\begin{array}{r} 321 \\ \times \quad 4 \\ \hline \end{array}$

4. $\begin{array}{r} 518 \\ \times \quad 7 \\ \hline \end{array}$

5. $\begin{array}{r} 4{,}092 \\ \times \quad 6 \\ \hline \end{array}$

6. $\begin{array}{r} 8{,}264 \\ \times \quad 9 \\ \hline \end{array}$

Estimate with 1-Digit Divisors **Estimate the quotient.**

7. $2\overline{)312}$

8. $4\overline{)189}$

9. $6\overline{)603}$

10. $3\overline{)1{,}788}$

MATH in the Real World

The height of the Gateway Arch shown on the Missouri quarter is 630 feet, or 7,560 inches. Find how many 4-inch stacks of quarters make up the height of the Gateway Arch. If there are 58 quarters in a 4-inch stack, how many quarters high is the arch?

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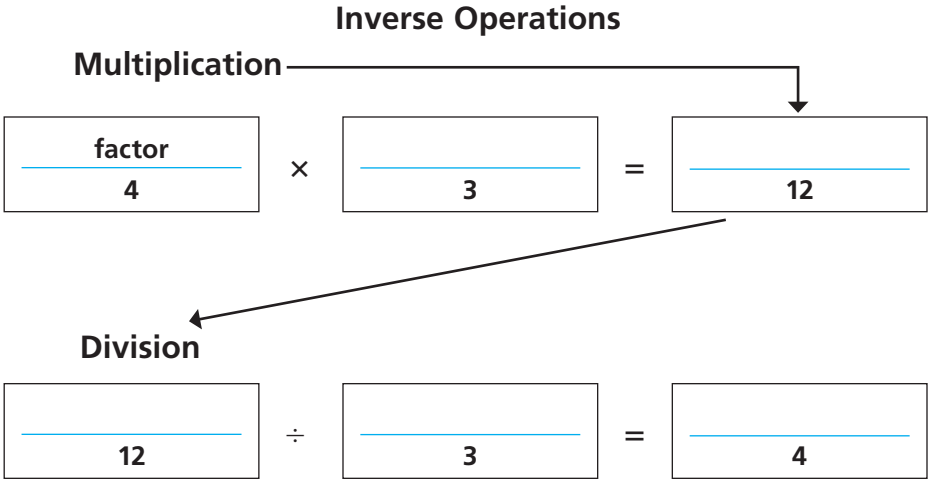
Vocabulary Builder

Go Online For more help

Visualize It

Complete the flow map using the words with a ✓.



Connect to Vocabulary

Review Words

- compatible numbers
- ✓ dividend
- ✓ divisor
- estimate
- ✓ factor
- partial quotients
- ✓ product
- ✓ quotient
- remainder

Understand Vocabulary

Use the review words to complete each sentence.

1. You can _____ to find a number that is close to the exact amount.

2. Numbers that are easy to compute with mentally are called _____.

3. The _____ is the amount left over when a number cannot be divided evenly.

4. A method of dividing in which multiples of the divisor are subtracted from the dividend and then the quotients are added together is called _____.

5. The number that is to be divided in a division problem is the _____.

6. The _____ is the number, not including the remainder, that results from dividing.

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Name _____

Divide by 2-Digit Divisors

I Can divide by 2-digit divisors.

Florida's B.E.S.T.

- **Number Sense & Operations** 5.NSO.2.2
- **Algebraic Reasoning** 5.AR.2.3
- **Mathematical Thinking & Reasoning** MTR.5.1, MTR.6.1, MTR.7.1

UNLOCK the Problem Real World

Mr. Yates owns a smoothie shop. To mix a batch of his famous orange smoothies, he uses 18 ounces of freshly squeezed orange juice. Each day he squeezes 560 ounces of fresh orange juice. How many batches of orange smoothies can Mr. Yates make in a day?

- Underline the sentence that tells you what you are trying to find.
- Circle the numbers you need to use.

Divide. 560 ÷ 18 **Estimate.** _____

STEP 1 Use the estimate to place the first digit in the quotient.

$18\overline{)560}$ The first digit of the quotient will be in the _____ place.

STEP 2 Divide the tens.

$$\begin{array}{r} 3 \\ 18\overline{)560} \\ -54 \\ \hline 2 \end{array}$$

Divide. 56 tens ÷ 18

Multiply. _____

Subtract. _____

Check. 2 tens cannot be shared among 18 groups without regrouping.

STEP 3 Divide the ones. Write the remainder as a fraction.

$$\begin{array}{r} 31\frac{2}{18} \\ 18\overline{)560} \\ -54\downarrow \\ \hline 20 \\ -18 \\ \hline 2 \end{array}$$

Divide. _____

Multiply. _____

Subtract. _____

Check. _____

_____

Since 31 is close to the estimate of 30, the answer is reasonable. So, Mr. Yates can make 31 batches of orange smoothies each day.

Math Talk

MTR 7.1 Apply mathematics to real-world contexts.

Describe what the remainder 2 represents.

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Example

Every Wednesday, Mr. Yates orders fruit. He has set aside $1,250 to purchase Valencia oranges. Each box of Valencia oranges costs $41. How many boxes of Valencia oranges can Mr. Yates purchase?

You can use multiplication to check your answer.

Divide. 1,250 ÷ 41

DIVIDE

Estimate. _____

$$41\overline{)1{,}250}$$

30 $\frac{20}{41}$

− ☐

☐

− ☐

☐

CHECK YOUR WORK

30

× 41

30

+ 1,200

☐

+ ☐

1,250 ✓

So, Mr. Yates can buy _____ boxes of Valencia oranges.

Try This! **Divide. Write your remainder as a fraction. Check your answer.**

A

$63\overline{)756}$

B

$22\overline{)46{,}921}$

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Name _____

Share and Show

Math Board

Divide. Write the remainder as a fraction. Check your answer.

1. $28\overline{)62{,}000}$

2. $64\overline{)842}$

3. $53\overline{)2{,}340}$

4. $723 \div 31$

5. $13{,}596 \div 45$

6. $7{,}925 \div 72$

Math Talk

MTR 5.1 Use patterns and structure.

Explain why you can use multiplication to check division.

On Your Own

Divide. Write the remainder as a fraction. Check your answer.

7. $16\overline{)346}$

8. $34\overline{)42{,}178}$

9. $77\overline{)851}$

10. $21\overline{)10{,}989}$

11. $32\overline{)6{,}466}$

12. $45\overline{)9{,}500}$

13. A city has 72,604 recycle bins. The city gives half of the recycle bins to its citizens. The rest of the recycle bins are divided into 23 equal groups for city parks. How many recycle bins are left over?

_____

Divide. Write the remainder as a fraction. Check your answer.

14. $775 \div 35$

15. $820 \div 41$

16. $80{,}505 \div 24$

17. $1{,}166 \div 53$

18. $1{,}989 \div 15$

19. $39{,}276 \div 35$

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Problem Solving · Applications

Use the list at the right to solve Problems 20–22.

20. A smoothie shop receives a delivery of 968 ounces of grape juice and 720 ounces of orange juice. How many more Royal Purple smoothies than Orange Tango smoothies can be made with the shipment of juices?

21. The shop has 1,260 ounces of cranberry juice and 650 ounces of passion fruit juice. If the juices are used to make Crazy Cranberry smoothies, which juice will run out first? How much of the other juice will be left over?

MATH on the Spot

22. MTR In the refrigerator, there are 680 ounces of orange juice and 410 ounces of mango juice. How many Orange Tango smoothies can be made? Explain your reasoning.

23. For 23a–23b, select True or False for each statement.

23a. $1{,}585 \div 16$ is $99\frac{1}{16}$. ○ True ○ False

23b. $1{,}473 \div 21$ is $70\frac{7}{21}$. ○ True ○ False

Smoothie Main Ingredients

Orange Tango Smoothie
18 ounces orange juice
12 ounces mango juice

Royal Purple Smoothie
22 ounces grape juice
8 ounces apple juice

Crazy Cranberry Smoothie
20 ounces cranberry juice
10 ounces passion fruit juice

Show the Math

Demonstrate Your Thinking

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Name _____

Divide by 2-Digit Divisors

Go Online
Interactive Examples

Divide. Write the remainder as a fraction. Check your answer.

24. 385 ÷ 12

$$\begin{array}{r} 32\ \frac{1}{12} \\ 12\overline{)385} \\ -36 \\ \hline 25 \\ -\ 24 \\ \hline 1 \end{array}$$

25. 837 ÷ 36

26. 16,504 ÷ 55

27. 5,634 ÷ 18

28. $28\overline{)64{,}512}$

29. $52\overline{)5{,}256}$

30. $85\overline{)1{,}955}$

31. $46\overline{)57{,}624}$

Problem Solving Real World

32. Factory workers make 756 machine parts in 36 hours. Suppose the workers make the same number of machine parts each hour. How many machine parts do they make each hour?

_____

33. One bag holds 12 bolts. Several bags filled with bolts are packed into a box and shipped to the factory. The box contains a total of 2,760 bolts. How many bags of bolts are in the box?

_____

34. WRITE Math Choose a problem that you solved in the lesson and solve the same problem using the partial quotients method. Compare the methods to solve the problems. Name the method you like better and explain why.

_____

_____

_____

_____

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Lesson Check

35. A bakery packages 868 muffins into 31 boxes. The same number of muffins are put into each box. How many muffins are in each box?

36. Maggie places 89 identical orders for her company. The total cost of the orders is $10,324. How much is the cost of each order?

Spiral Review

37. What is the standard form of the number two hundred sixteen thousand, ninety?

38. Zahra and 23 friends go roller skating. They pay a total of $186. About how much does it cost for one person to skate?

39. In two days, Mariposa drinks seven 16-ounce bottles of water. She drinks the water in 4 equal servings. How many ounces of water does Mariposa drink in each serving?

40. What is the value of the underlined digit in $\underline{4}36,788$?

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Name _____

Interpret the Remainder

Florida's B.E.S.T.

- **Number Sense & Operations** 5.NSO.2.2
- **Mathematical Thinking & Reasoning** MTR.4.1, MTR.5.1, MTR.6.1, MTR.7.1

I Can interpret remainders when solving a division problem.

UNLOCK the Problem Real World

Hiro and his family want to hike a trail that is 1,365 miles long. They will hike equal parts of the trail on 12 different hiking trips. How many miles will Hiro's family hike on each trip?

- Circle the dividend you will use to solve the division problem.
- Underline the divisor you will use to solve the division problem.

When you solve a division problem with a remainder, the way you interpret the remainder depends on the situation and the question. Sometimes you need to use both the quotient and the remainder. You can do that by writing the remainder as a fraction.

One Way Write the remainder as a fraction.

First, divide to find the quotient and remainder.

Then, decide how to use the quotient and remainder to answer the question.

$$12\overline{)1,365}$$

- The _____ represents the number of trips Hiro and his family plan to take.
- The _____ represents the whole-number part of the number of miles Hiro and his family will hike on each trip.
- The _____ represents the number of miles left over.
- The remainder represents 9 miles, which can also be divided into 12 parts and written as a fraction.

$$\frac{\text{remainder}}{\text{divisor}} \rightarrow \_\_\_\_\_$$

- Write the quotient with the remainder written as a fraction.

_____

So, Hiro and his family will hike _____ miles on each trip.

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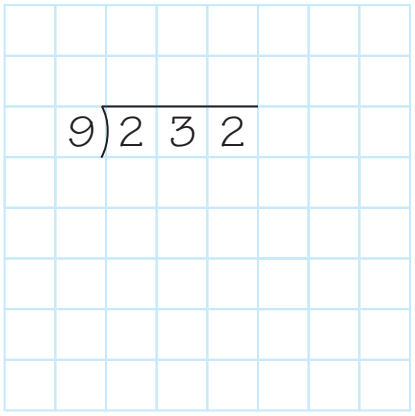
Another Way **Use only the quotient.**

The segment of the Appalachian Trail that runs through Pennsylvania is 232 miles long. Selena and her family want to hike 9 miles each day on the trail. How many days will they hike exactly 9 miles?



- Divide to find the quotient and the remainder.
- Since the remainder shows that there are not enough miles left for another 9-mile day, it is not used in the answer.

So, they will hike exactly 9 miles on each of _____ days.

Other Way

A **Add 1 to the quotient.**

What is the total number of days that Selena will need to hike 232 miles?

- To hike the 7 remaining miles, she will need 1 more day.

So, Selena will need _____ days to hike 232 miles.

B **Use the remainder as the answer.**

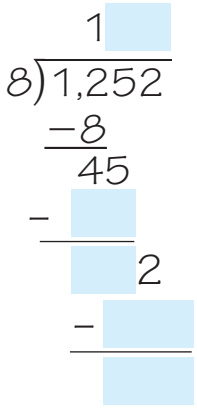
If Selena hikes 9 miles each day except the last day, how many miles will she hike on the last day?

- The remainder is 7.

So, Selena will hike _____ miles on the last day.

Try This!

A sporting goods store is going to ship 1,252 sleeping bags. Each shipping carton can hold 8 sleeping bags. How many cartons are needed to ship all of the sleeping bags?



Since there are _____ sleeping bags left over,

_____ cartons will be needed for all of the sleeping bags.

Math Talk

MTR 7.1 **Apply mathematics to real-world contexts.**

Explain why you would not write the remainder as a fraction when you find the number of cartons needed in the Try This! problem.

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Name _____

Share and Show

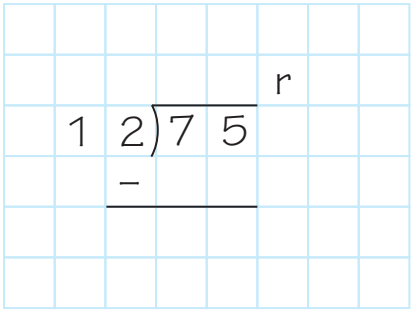
Math Board

Interpret the remainder to solve.

1. Chione and Park want to hike the Big Cypress Trail. They will hike a total of 75 miles. If Chione and Park plan to hike for 12 days, how many miles will they hike each day?

a. Divide to find the quotient and remainder.

b. Decide how to use the quotient and remainder to answer the question.



2. What if Chione and Park want to hike 14 miles each day? How many days will they hike exactly 14 miles?

3. Ahmed's hiking club is planning to stay overnight at a camping lodge. Each large room can hold 15 hikers. There are 154 hikers. How many rooms will they need?

On Your Own

Interpret the remainder to solve.

4. The students in a class of 24 share 48 apple slices and 36 orange slices equally among them. How many pieces of fruit did each student get?

5. Coco has 212 stickers to put in her sticker book. Each page holds 18 stickers. How many pages does Coco need for all of her stickers?

6. A total of 123 fifth-grade students are going to Fort Verde State Historic Park. Each bus holds 38 students. All of the buses are full except one. How many students will be in the bus that is not full?

7. MTR Sheila is going to divide a 36-inch piece of ribbon into 5 equal pieces. She says each piece will be 7 inches long. What is Sheila's error?

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Problem Solving · Applications Real World

8. Mihyun has 243 ounces of trail mix. She puts an equal number of ounces in each of 15 bags. How many ounces of trail mix does Mihyun have left over?

a. What do you need to find? _____

b. How will you use division to find how many ounces of trail mix are left over?

_____

_____

c. Show the steps you use to solve the problem.

d. Complete the sentences.

Mihyun has _____ ounces of trail mix.

She puts an equal number of ounces in each of _____ bags.

Each bag has _____ ounces.

Mihyun has _____ ounces of trail mix left over.

9. James has 884 feet of rope. There are 12 teams of hikers. If James gives an equal amount of rope to each team, how much rope will each team receive?

MATH on the Spot

_____

10. Rory works at a produce packing plant. She and her team packed 21,724 cans of peas last week and put them in boxes with 8 cans in each box. How many boxes did they fill with 8 cans? Explain how you used the quotient and the remainder to answer the question.

_____

_____

_____

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Name _____

Interpret the Remainder

Go Online
Interactive Examples

Interpret the remainder to solve.

11. Warren spent 140 hours making 16 wooden toy trucks for a craft fair. If he spent the same amount of time making each truck, how many hours did he spend making each truck?

$$\begin{array}{r} 8 \\ 16\overline{)140} \\ -128 \\ \hline 12 \end{array}$$

$8\frac{12}{16}$ hours

12. Mihir has 14,203 beads. He uses 36 beads to make one necklace. How many necklaces can he make?

Problem Solving Real World

13. A campground has cabins that can each hold 28 campers. There are 148 campers visiting the campground. How many cabins are full if 28 campers are in each cabin?

14. Frida has 220 ounces of cleaning solution that she wants to divide equally among 12 large containers. How much cleaning solution should she put in each container?

15. WRITE Math Suppose you have 192 marbles in groups of 15 marbles each. Find the number of groups of marbles that you have. Write the quotient with the remainder written as a fraction. Explain what the fraction part of your answer means.

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Lesson Check

16. Henry and 28 classmates go to the roller skating rink. Each van can hold 11 students. If all of the vans are full except one, how many students are in the van that is not full?

17. Luiza buys 20 ounces of mixed nuts. She puts an equal number of ounces in each of 3 bags. How many ounces of mixed nuts will be in each bag? Write the answer as a whole number and a fraction.

Spiral Review

18. Jayson earns $196 each week bagging groceries at the store. He saves half his earnings each week. How much money does Jayson save per week?

19. Desiree swims laps for 25 minutes each day. How many minutes does she spend swimming laps in 14 days?

20. Dimos is participating in a bike-a-thon for charity. He will bike 144 miles per day for 5 days. How many miles will Dimos bike in the five days?

21. Kasi is building a patio. He has 136 bricks. He wants the patio to have 8 rows, each with the same number of bricks. How many bricks will Kasi put in each row?

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Name _____

Adjust Quotients

Florida's B.E.S.T.

- **Number Sense & Operations** 5.NSO.2.2
- **Mathematical Thinking & Reasoning** MTR.1.1, MTR.2.1, MTR.4.1, MTR.5.1, MTR.6.1

I Can adjust the quotient if my estimate is too high or too low.

CONNECT When you estimate to decide where to place the first digit, you can also try using the first digit of your estimate to find the first digit of your quotient. Sometimes an estimate is too low or too high.

Divide. 3,382 ÷ 48

Estimate. 3,000 ÷ 50 = 60

Try 6 tens.

If an estimate is too low, the difference will be greater than the divisor.

$$\begin{array}{r} 6 \\ 48\overline{)3{,}382} \\ -2\,88 \\ \hline 50 \end{array}$$

Since the estimate is too low, adjust by increasing the number in the quotient.

Divide. 453 ÷ 65

Estimate. 490 ÷ 70 = 7

Try 7 ones.

If an estimate is too high, the product with the first digit will be too large and cannot be subtracted.

$$\begin{array}{r} 7 \\ 65\overline{)453} \\ -455 \\ \hline \end{array}$$

Since the estimate is too high, adjust by decreasing the number in the quotient.

UNLOCK the Problem Real World

A new music group makes 6,127 copies of its first CD. The group sells 75 copies of the CD at each of its shows. How many shows does it take the group to sell all of the CDs?

Divide. 6,127 ÷ 75 **Estimate.** 6,300 ÷ 70 = 90

STEP 1 Use the estimate, 90. Try 9 tens.

- Is the estimate too high, too low, or correct?

_____

- Adjust the number in the quotient if needed.

STEP 2 Estimate the next digit in the quotient.
Divide the ones.
Estimate: 140 ÷ 70 = 2. Try 2 ones.

- Is the estimate too high, too low, or correct?

_____

- Adjust the number in the quotient if needed.

So, it takes the group _____ shows to sell all of the CDs.

$75\overline{)6{,}127}$

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Try This! **When the difference is equal to or greater than the divisor, the estimate is too low.**

Divide. 336 ÷ 48 **Estimate.** 300 ÷ 50 = 6

Use the estimate.

Try 6 ones.

$$48\overline{)336}\quad 6$$

Since _____, the estimate is _____.

336 ÷ 48 = _____

Adjust the estimated digit in the quotient if needed. Then divide.

Try _____.

Math Talk

MTR 4.1 **Engage in discussions on mathematical thinking.**

Explain why using the closest estimate could be useful in solving a division problem.

Share and Show

Math Board

Adjust the estimated digit in the quotient, if needed. Then divide. Write the remainder as a fraction.

1. $41\overline{)15{,}462}\quad 4$

2. $16\overline{)416}\quad 2$

✓ **3.** $34\overline{)2{,}831}\quad 9$

Divide.

4. $19\overline{)915}$

5. $28\overline{)1{,}825}$

✓ **6.** $45\overline{)3{,}518}$

Math Talk

MTR 6.1 **Assess the reasonableness of solutions.**

Explain how you know whether an estimated quotient is too low or too high.

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Name _____

On Your Own

Divide. Write the remainder as a fraction.

7. $15\overline{)975}$

8. $37\overline{)26{,}400}$

9. $34\overline{)6{,}837}$

Divide.

10. 452 ÷ 31

11. 592 ÷ 74

12. 785 ÷ 14

13. 601 ÷ 66

14. 1,067 ÷ 97

15. 2,693 ÷ 56

16. 1,488 ÷ 78

17. 2,230 ÷ 42

18. 4,295 ÷ 66

MTR Algebra Write the unknown number for each ■.

19. ■ ÷ 33 = 11

20. 1,092 ÷ 52 = ■

21. 429 ÷ ■ = 33

■ = _____

■ = _____

■ = _____

22. MTR A deli served 1,288 sandwiches in 4 weeks. If it served the same number of sandwiches each day, how many sandwiches did it serve in 1 day? Explain how you found your answer.

_____

_____

_____

23. Kainoa collects trading cards. He has 1,025 baseball cards, 713 basketball cards, and 836 football cards. He wants to put all of them in albums. Each page in the albums holds 18 cards. How many pages will he need to hold all of his cards?

_____

MATH on the Spot

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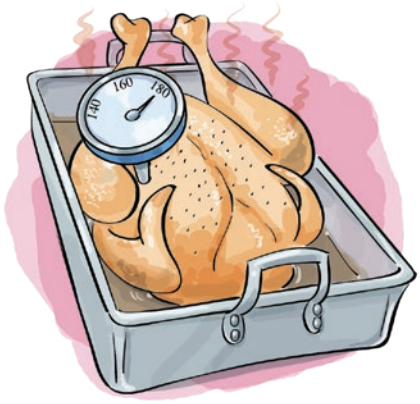
Problem Solving · Applications

24. A banquet hall serves 2,394 pounds of turkey during a 3-week period. If the same amount is served each day, how many pounds of turkey does the banquet hall serve each day?



a. What do you need to find? _____

_____

b. What information are you given? _____

_____

c. What other information will you use?

_____

_____

_____

d. Find how many days there are in 3 weeks.

There are _____ days in 3 weeks.

e. Divide to solve the problem.

f. Complete the sentence.
The banquet hall serves _____ of turkey each day.

25. Darius mixes 624 ounces of lemonade. He wants to fill the 52 cups he has with equal amounts of lemonade. How much lemonade should he put in each cup?

_____

26. Oliver estimates the first digit in the quotient.

$$75\overline{)62{,}348}$$

Oliver's estimate is

correct.
too high.
too low

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Name _____

Adjust Quotients

Go Online
Interactive Examples

Adjust the estimated digit in the quotient, if needed. Then divide.

27.
$$\begin{array}{r} 5 \\ 16\overline{)976} \\ -80 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 61 \\ 16\overline{)976} \\ -96 \\ \hline 16 \\ -16 \\ \hline 0 \end{array}$$

28. $24\overline{)689}$

29. $65\overline{)2{,}210}$

30. $38\overline{)70{,}354}$

Divide.

31. $2{,}961 \div 47$

32. $2{,}072 \div 86$

33. $44\overline{)29{,}103}$

34. $82\overline{)4{,}018}$

Problem Solving Real World

35. A copier prints 89 copies in one minute. How many minutes does it take the copier to print 1,958 copies?

_____

36. Kira is saving her money to buy a dining room set that costs $580. If she saves $29 each month, how many months will she need to save to have enough money to buy the set?

_____

37. WRITE Math Explain the different ways that you can use multiplication to estimate and solve division problems.

_____

_____

_____

_____

_____

_____

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Lesson Check

38. Badr ordered 5,675 pounds of flour for the bakery. The flour comes in 25-pound bags. How many bags of flour will the bakery receive?

39. Simone is in a bike-a-thon for a fundraiser. She receives $15 in pledges for every mile she bikes. If she wants to raise $510, how many miles does she need to bike?

Spiral Review

40. Lina makes beaded bracelets. She uses 9 beads to make each bracelet. How many bracelets can she make with 156 beads?

41. A total of 1,056 students from different schools enter the county science fair. Each school enters exactly 32 students. How many schools participate in the science fair?

42. What is $\frac{1}{10}$ of 6,000?

43. Emani buys 48 barrettes. She shares the barrettes equally between herself and her 3 sisters. How many barrettes does each girl get?

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Name _____

Draw to Solve Division Problems

Florida's B.E.S.T.

- **Number Sense & Operations** 5.NSO.2.2
- **Mathematical Thinking & Reasoning** MTR.2.1, MTR.3.1, MTR.7.1

I Can draw a diagram to help me solve a division problem.

UNLOCK the Problem

Real World

Jairus and his family chartered a fishing boat for the day. Jairus caught a blue marlin and an amberjack. The weight of the blue marlin was 12 times as great as the weight of the amberjack. The combined weight of both fish was 273 pounds. How much did each fish weigh?

Read the Problem

What do I need to find?

I need to find _____

_____.

What information do I need to use?

I need to know that Jairus caught a total of _____ pounds of fish and the weight of the blue marlin was _____ times as great as the weight of the amberjack.

How will I use the information?

I can use the strategy _____ and then divide. I can draw and use a bar model to write the division problem that helps me find the weight of each fish.

Solve the Problem

I will draw one box to show the weight of the amberjack. Then I will draw a bar of 12 boxes of the same size to show the weight of the blue marlin. I can divide the total weight of the two fish by the total number of boxes.

amberjack ☐

blue marlin ☐☐☐☐☐☐☐☐☐☐☐☐

273 pounds

$$\begin{array}{r} 2 \\ 13\overline{)273} \\ -26 \\ \hline \square \\ -\ \square \\ \hline \square \end{array}$$

Write the quotient in each box. Multiply it by 12 to find the weight of the blue marlin.

So, the amberjack weighed _____ pounds, and the blue marlin weighed _____ pounds.

Go Online For more help

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Try This! Rashaun, Mito, and Dana went fishing. Dana caught a red snapper. Rashaun caught a tuna with a weight 3 times as great as the weight of the red snapper. Mito caught a sailfish with a weight 12 times as great as the weight of the red snapper. If the combined weight of the three fish was 208 pounds, how much did the tuna weigh?

Read the Problem

What do I need to find?	What information do I need to use?	How will I use the information?

Solve the Problem

So, the tuna weighed _____ pounds.

- How can you check if your answer is correct? _____

_____

Math Talk

MTR 2.1 Demonstrate understanding in multiple ways.

Explain how you could use another strategy to solve this problem.

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Name _____

Share and Show

Math Board

1. Kisha caught a tarpon with a weight that was 10 times as great as the weight of a permit fish she caught. The total weight of the two fish was 132 pounds. How much did each fish weigh?

   First, draw one box to represent the weight of the permit fish and ten boxes to represent the weight of the tarpon.

   Next, divide the total weight of the two fish by the total number of boxes you drew. Place the quotient in each box.

   Last, find the weight of each fish.

   The permit fish weighed _____ pounds.

   The tarpon weighed _____ pounds.

2. What if the weight of the tarpon was 11 times the weight of the permit fish, and the total weight of the two fish was 132 pounds? How much would each fish weigh?

   permit fish: _____ pounds

   tarpon: _____ pounds

3. Vas caught four fish that weighed a total of 252 pounds. The kingfish weighed twice as much as the amberjack and the white marlin weighed twice as much as the kingfish. The weight of the tarpon was 5 times the weight of the amberjack. How much did each fish weigh?

   amberjack: _____ pounds

   kingfish: _____ pounds

   white marlin: _____ pounds

   tarpon: _____ pounds

Show the Math

Demonstrate Your Thinking

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On Your Own

Use the table to solve Problems 4–5.

Kevin's Supply List for a Saltwater Aquarium	
40-gal tank	$170
Aquarium light	$30
Filtration system	$65
Thermometer	$2
15-lb bag of gravel	$13
Large rocks	$3 per lb
Clown fish	$20 each
Damselfish	$7 each

4. Kevin bought 3 bags of gravel to cover the bottom of his fish tank. He has 8 pounds of gravel left over. How many pounds of gravel did Kevin use to cover the bottom of the tank?

5. MTR Look back at Problem 4. Write a similar problem by changing the number of bags of gravel and the amount of gravel left.

6. The crew on a fishing boat caught four fish that weighed a total of 1,092 pounds. The tarpon weighed twice as much as the amberjack and the white marlin weighed twice as much as the tarpon. The weight of the tuna was 5 times the weight of the amberjack. How much did each fish weigh?

MATH on the Spot

7. A fish market bought two swordfish at a rate of $13 per pound. The cost of the larger fish was 3 times as great as the cost of the smaller fish. The total cost of the two fish was $3,952. How much did each fish weigh?

8. Eric and Stephanie took their younger sister Melissa to pick apples. Eric picked 4 times as many apples as Melissa. Stephanie picked 6 times as many apples as Melissa. Eric and Stephanie picked 150 apples together. Draw a diagram to find the number of apples Melissa picked.

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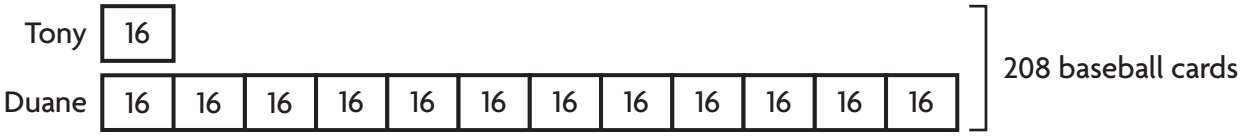
Name

Draw to Solve Division Problems

Go Online
Interactive Examples

Show your work. Solve each problem.

9. Duane has 12 times as many baseball cards as Tony. Between them, they have 208 baseball cards. How many baseball cards does each boy have?



208 ÷ 13 = 16

Tony: 16 cards; Duane: 192 cards

Problem Solving · Applications

10. Over the summer, Gabriela read 10 times as many pages as Salima. Altogether, they read 12,078 pages. How many pages did each girl read?

11. Kelly has 4 times as many songs on her music player as Lou. Tiffany has 6 times as many songs on her music player as Lou. Altogether, they have 682 songs on their music players. How many songs does Kelly have?

12. WRITE Math Create a word problem that uses division. Draw a bar model to help you write an equation to solve the problem.

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Lesson Check

13. Chelsea has 11 times as many art brushes as Monique. If they have 60 art brushes altogether, how many brushes does Chelsea have?

14. Jo has a gerbil and a German shepherd. The shepherd eats 14 times as much food as the gerbil. Altogether, they eat 225 ounces of dry food per week. How many ounces of food does the German shepherd eat per week?

Spiral Review

15. The number sentence $4 \times 6 = 6 \times 4$ is an example of what property?

16. Duc is shipping nails that weigh a total of 53 pounds. He divides the nails equally among 4 shipping boxes. How many pounds of nails does he put in each box?

17. Anya plants 6 rows of small flower bulbs in a garden. She plants 132 bulbs in each row. How many bulbs does Anya plant?

18. Next year, four elementary schools will each send 126 students to Bedford Middle School. What is the total number of students the elementary schools will send to the middle school?

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Name _____

Model Multiplication and Division Equations

Florida's B.E.S.T.

- **Algebraic Reasoning** 5.AR.1.1, 5.AR.2.4
- **Number Sense & Operations** 5.NSO.2.1, 5.NSO.2.2
- **Mathematical Thinking & Reasoning** MTR.2.1, MTR.3.1, MTR.5.1

I Can model and solve multiplication and division equations.

UNLOCK the Problem

Real World

Rashid is buying a movie ticket and a box of popcorn for $12. The ticket costs 2 times as much as the popcorn. How much does the popcorn cost? How much does the ticket cost?

The cost of the ticket is $2 \times p$, where p is the price of the popcorn.

- How does knowing that a ticket costs 2 times as much as the popcorn help you choose an operation to write an expression?

_____

_____

Use a related equation.

STEP 1

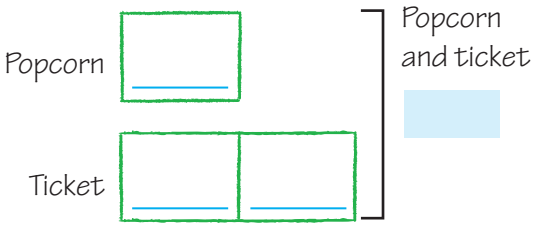
Complete the bar model to represent the popcorn and ticket cost.

The popcorn costs p. Label the box for the popcorn. It represents 1 unit.

The cost of the ticket is _____ times as much. Label the boxes for the ticket.

What is the total cost? _____

How many units are shown in the model? _____



Popcorn: 1 unit = _____

Popcorn + ticket: 3 units = _____

STEP 2

Use the bar model to write a multiplication equation.

Cost of popcorn and ticket: $3 \times p$ = Total cost: _____

To find a missing factor, write a division equation that is related to the multiplication equation. Then divide.

_____ $\div 3 = p$ _____ $= p$

So, 1 bag of popcorn costs _____.

The cost of 1 ticket is 2 times the cost of 1 bag of popcorn.

So, 1 ticket costs _____.

Math Idea

You can write $3 \times p$ as $3 \times p$, $3p$, $3(p)$, or $3 \bullet p$.

Math Talk

MTR 3.1 Complete tasks with mathematical fluency.

What is the total cost of 3 boxes of popcorn and 6 tickets?

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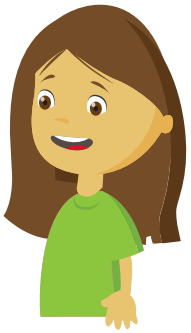
Examples Use a related equation.

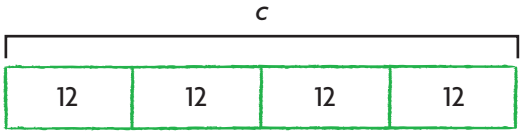


Katrina buys a package of trading cards. She divides the cards into 4 equal piles. Each pile contains 12 cards. The equation that describes the number of cards in the package is $c \div 4 = 12$. How many cards were in the package when Katrina bought it?

Write a related equation.

MODEL

- Use a bar model to represent the problem.



SOLVE

- Write a related multiplication equation.

Multiplication equation: _____

c = _____

So, the package Katrina bought had _____ trading cards in it.

Math Talk

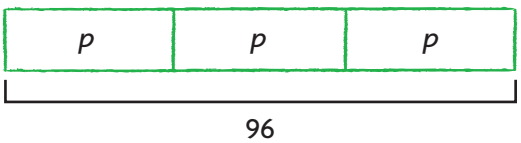
MTR 2.1 Demonstrate understanding in multiple ways.

Explain how the bar models for multiplication and division are related.

Share and Show Math Board

Use the bar models to write an equation. Then solve.

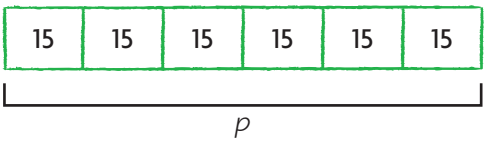
1. The cost of 3 pencils is 96 cents. Each pencil costs the same. What is the cost of 1 pencil, p?



Equation: _____ = 96 p = _____

One pencil costs _____ cents.

2. Chef makes 6 batches of chili. Each batch contains 15 pints of tomato sauce. How many pints does she use in all?



Equation: _____ p = _____

If one pint equals 2 cups, chef uses _____ cups of sauce.

On Your Own

Use a bar model or a related equation to solve. Check your solution.

3. $128 = 8 \times d$

4. $r \div 9 = 17$

5. $6m = 78$

6. $7 = b \div 17$

7. WRITE Math How can you justify that $j = 348$ is the solution to $j \div 12 = 29$? Explain.

_____

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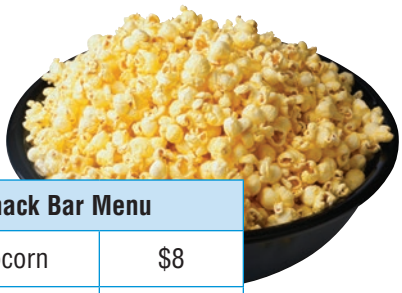
Name _____

Use the table to complete Problems 8–9. Use a bar model to write each equation. Then solve.



Snack Bar Menu	
Large Popcorn	$8
Medium Drink	$5
Fruit Snack	$4
Yogurt Bars	$3
Family Combo	$18

8. On Friday, the snack bar made $992 selling large buckets of popcorn. How many large buckets of popcorn did the snack bar sell on Friday?

In your equation, let p represent the number of large buckets of popcorn sold.

_____

9. MTR On Thursday, the snack bar made a total of $340 in medium drink sales and a total of $216 in yogurt bar sales. Which item did the snack bar sell more of on Thursday? Explain how you found your answer.

_____

_____

_____

_____

_____

10. Asher wants to buy a video game console. In order to save the money needed to buy it in 5 months, he divides the cost by 5. He finds he needs to save $37 a month. What is the total cost, c, of the game console?

_____

_____

11. Mei bought a bag of buttons. She divides the buttons equally among 15 containers. Each container has 10 buttons. How many buttons does Mei have?

In your equation, let b represent the number of buttons Mei has.

_____

MATH on the Spot

Show the Math

Demonstrate Your Thinking

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Problem Solving · Applications

Fill in the bubble completely to show your answer.

12. A day on Neptune lasts for 16 hours. How many Neptune days are in 144 hours? Select the equation and solution that shows how many Neptune days are in 144 hours.

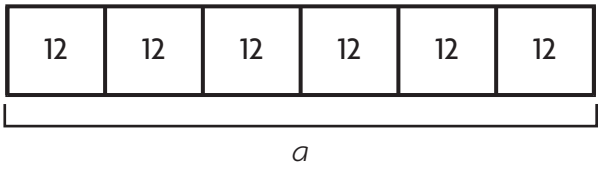
Ⓐ $16d = 144$; $d = 9$

Ⓑ $d = 16 \times 144$; $d = 2{,}304$

Ⓒ $16 + d = 144$; $d = 128$

Ⓓ $d = 16 + 144$; $d = 160$

13. Stella puts 12 ounces of water in each of 6 bottles. How many ounces of water does she use? Select all of the equations she could use to solve the problem.



Ⓐ $6a = 12$

Ⓑ $a \div 6 = 12$

Ⓒ $12a = 6$

Ⓓ $6 \times 12 = a$

14. Noah bought 5 CDs and a DVD for a total of $57. The DVD cost $12. The CDs were each the same price. How much did Noah pay for each CD?

Ⓐ $12

Ⓑ $15

Ⓒ $11

Ⓓ $9

15. Nesim earned $133 for 7 hours of work. How much does Nesim earn per hour? The equation $7p = 133$ can be used to find p, the amount Nesim earns per hour.

Ⓐ $19

Ⓑ $6

Ⓒ $931

Ⓓ $69

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Name _____

Model Multiplication and Division Equations

Go Online
Interactive Examples

Use a bar model or a related equation to solve.

Check your solution.

16. $c \div 5 = 13$ _____

17. $112 = 7 \times b$ _____

18. $4p = 68$ _____

19. $9 = d \div 21$ _____

20. $105 = 3 \times a$ _____

21. $9g = 99$ _____

22. $m \div 10 = 16$ _____

23. $22 = n \div 7$ _____

24. $92 = f \times 4$ _____

25. $h \div 9 = 14$ _____

26. $13 = j \div 8$ _____

27. $165 = 11r$ _____

Problem Solving Real World

28. Darva arranges fabric squares to sew together to make a blanket for her baby sister. She divides the fabric squares equally among 12 rows. Each row has 8 squares. How many fabric squares does Darva have?

In your equation, let f represent the number of fabric squares Darva has.

_____

29. A school district purchased 90 new computers. The computers were divided equally among 6 classrooms. How many new computers are in each classroom?

In your equation, let c represent the number of computers in each classroom.

_____

30. Write a real-world problem for the equation $4 \times y = 60$. Then solve.

_____

_____

_____

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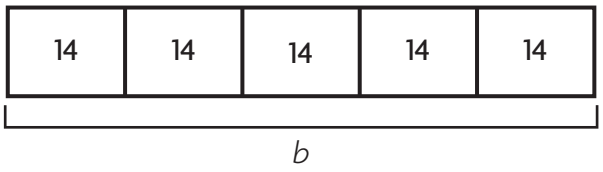
Lesson Check

Fill in the bubble completely to show your answer.

31. Which equation does the bar model represent?



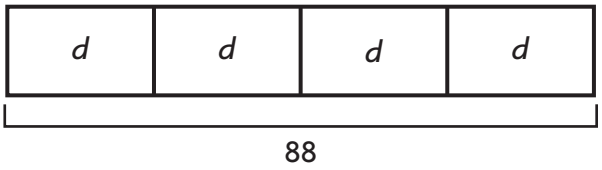
Ⓐ $b \div 5 = 14$

Ⓑ $14b = 5$

Ⓒ $14 \div 5 = b$

Ⓓ $5b = 14$

32. Which equation does the bar model represent?



Ⓐ $d + 4 = 88$

Ⓑ $d \div 4 = 88$

Ⓒ $4d = 88$

Ⓓ $d = 4 \times 88$

33. Dori earned 95 points on her science test. She received 5 points for each question she answered correctly. How many questions did Dori answer correctly? The equation $5q = 95$ can be used to find q, the number of questions answered correctly.

Ⓐ 100

Ⓑ 90

Ⓒ 19

Ⓓ 11

34. The Adams family drove 270 miles to reach their vacation destination. If they drove 45 miles each hour, how many hours did they drive? Which equation can you use to represent the problem?

Ⓐ $h = 270 \times 45$

Ⓑ $270 = 45h$

Ⓒ $45 \div h = 270$

Ⓓ $h + 45 = 270$

Spiral Review

35. At the movie complex, there are 16 theaters. In each theater, there are 9 rows of 18 seats. How many total seats are there?

Ⓐ 297

Ⓑ 2,592

Ⓒ 23,328

Ⓓ 178

36. Sergei is saving up for a gaming system that costs $376. If he saves $49 per month, how many months will it be before he can purchase the system?

Ⓐ 6 months

Ⓑ 7 months

Ⓒ 8 months

Ⓓ 9 months

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Name _____

Represent and Solve Multi-Step Problems with Bar Models

Florida's B.E.S.T.

- **Algebraic Reasoning** 5.AR.1.1, 5.AR.2.4
- **Number Sense & Operations** 5.NSO.2.1, 5.NSO.2.2
- **Mathematical Thinking & Reasoning** MTR.2.1, MTR.3.1, MTR.5.1

I Can represent and solve multi-step problems using bar models and equations.

UNLOCK the Problem

Real World

Shaniqua buys 140 small beads and 30 large beads to make bracelets. She makes 5 bracelets. She uses 13 beads on each bracelet. How many beads does Shaniqua have left?

- Underline the important information.

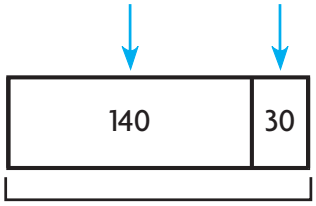
Example 1 Use multiple single-step equations.

STEP 1 Find the total number of beads Shaniqua buys.

$140 + 30 = a$

$\_\_\_\_\_ = a$

total number of small beads — total number of large beads

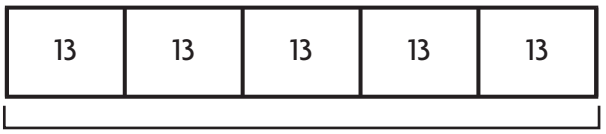


a ← total number of beads Shaniqua buys

STEP 2 Find the total number of beads Shaniqua uses to make 5 bracelets.

$5 \times 13 = d$

$\_\_\_\_\_ = d$



← 5 bracelets with 13 beads

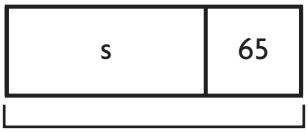
d ← total number of beads Shaniqua uses

STEP 3 Find the total number of beads Shaniqua has left.

$170 - 65 = s$

$\_\_\_\_\_ = s$

beads left — beads used



170 ← total number of beads Shaniqua buys

So, Shaniqua has _____ beads left.

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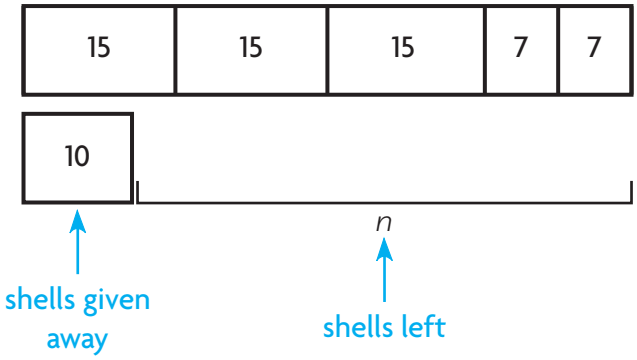
Try This! **Sometimes you can use one multi-step equation to solve a problem.**

Miguel sorts his seashell collection into boxes. He has 3 boxes with 15 periwinkle shells in each box. He has 2 boxes with 7 clamshells in each box. He gives his little brother 10 shells. How many shells does he have now?



$3 \times 15 + 2 \times 7 - 10 = n$

$\_\_\_\_ + \_\_\_\_ - \_\_\_\_ = n$

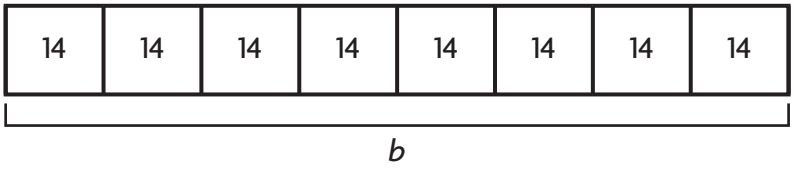
$\_\_\_\_ - \_\_\_\_ = n$

$\_\_\_\_ = n$

Example 2

Banu has two card-collection books. The first book has 8 cards on each of 14 pages. The second book has 6 cards on each of 15 pages. Which of the two books has more cards?

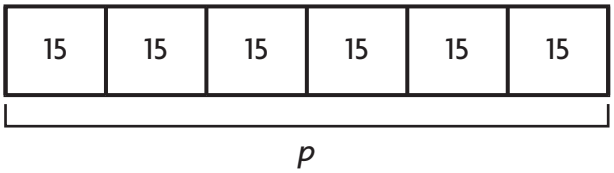
STEP 1 Solve the equation $b \div 8 = 14$ to find the number of cards in the first book.



Write a related multiplication equation.

$14 \times \_\_\_\_ = b$ $\quad b = \_\_\_\_$

STEP 2 Solve the equation $p \div 6 = 15$ to find the number of cards in the second book.



Write a related multiplication equation.

$15 \times \_\_\_\_ = p$ $\quad p = \_\_\_\_$

STEP 3 Compare the number of cards in each book.

The first book has _____ cards.

The second book has _____ cards.

Since _____ > _____, the _____ book has more cards.

Math Talk

MTR 2.1 **Demonstrate understanding in multiple ways.**

Explain why you can use a related multiplication equation to solve a division problem.

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Name _____

Share and Show Math Board

Use equations to solve each multi-step problem.

1. A caterer is making 3 trays of 24 sandwiches and 2 trays of 30 sandwiches. She receives an order for 35 sandwiches. How many sandwiches, *s*, does the caterer have left?

_____

2. A baseball league has a total of 156 players. The players are divided into 12 equal teams. Each team has 3 coaches. All players and coaches receive 2 jerseys. How many jerseys, *j*, will each team receive?

_____

On Your Own

Use equations to solve.

3. A florist makes 4 floral arrangements that are exactly the same. He uses 4 bunches of 8 tulips and 2 bunches of 10 daisies. How many flowers, *f*, are in each arrangement?

_____

4. Francois is rolling coins. He has 3 rolls of 40 quarters. He has 8 rolls of 50 dimes. He exchanges 2 rolls of dimes for 1 roll of quarters. How many coins, *c*, does Francois have?

MATH on the Spot

_____

5. Eva has 4 trays of 15 sedimentary rocks. She has 6 trays of 12 metamorphic rocks. She gives away 5 sedimentary rocks for 7 metamorphic rocks. How many rocks, *r*, does she have?

_____

6. MTR Murial alternates her exercise. She runs 5 miles each day for 3 days and walks 4 miles each day for 2 days in one week. She rides her bike 8 miles each day for 4 days the next week. How many more miles, *m*, does Murial travel during the second week than the first week?

_____

Show the Math

Demonstrate Your Thinking

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Problem Solving · Applications Real World

Fill in the bubble completely to show your answer.

7. MTR A volunteer took 3 cups and 7 quarts of a large bowl of soup home from a cooking class. How much soup did this volunteer take? (Hint: There are 4 cups in a quart.)

Ⓐ 31 cups

Ⓑ 37 cups

Ⓒ 31 quarts

Ⓓ 42 quarts

8. Tam's dog eats 3 times as much as her cat each day. If the cat eats 2 scoops of food each day, how many scoops of food do both animals eat in a week?

Ⓐ 6 scoops

Ⓑ 12 scoops

Ⓒ 21 scoops

Ⓓ 56 scoops

9. Evelyn has 4 boxes with 8 pieces of sidewalk chalk in each box. She has 3 boxes with 9 stickers in each box. She gets 5 more pieces of sidewalk chalk from her brother. If she places each sticker and each piece of chalk into a bin, how many items does she place in the bin?

Ⓐ 24

Ⓑ 55

Ⓒ 64

Ⓓ 72

10. The cost of 3 pizzas is shared equally by 6 people. Each pizza costs $9. Each person contributes $5. Which equation could be used to find, m, the amount of money left?

Ⓐ $3 \times 9 - 6 \times 5 = m$

Ⓑ $9 \div 3 - 6 \times 5 = m$

Ⓒ $6 \times 5 - 3 \times 9 = m$

Ⓓ $3 \times 9 + 5 \times 6 = m$

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Name _____

Represent and Solve Multi-Step Problems with Bar Models

Go Online
Interactive Examples

Use equations to solve.

11. Last week, Thi picked 4 baskets of 8 tomatoes from her garden. This week, she picked 3 baskets of 13 tomatoes. How many more tomatoes, *t*, does Thi pick this week than last week?

12. A costume designer sews 4 rows of 16 beads on a princess costume, 5 rows of 15 beads on a butterfly costume, and 3 rows of 17 beads on a ballerina costume. How many more beads, *b*, are sewn on the costume with the most beads than are sewn on the costume with the least number of beads?

13. Venancio needs to paint 8 game boards for the carnival. Each game board is divided into 12 parts. He paints 5 parts of 8 game boards yellow, 3 parts of 6 game boards red, 2 parts of 7 game boards green, and 15 parts purple. How many more parts, *p*, does Venancio have left to paint?

14. Mr. Gates buys frozen yogurt bars for the grade 5 picnic. He buys 3 packages of 12 strawberry yogurt bars and 6 packages of 8 banana yogurt bars. He gives an equal number of frozen yogurt bars to each of 3 classes. How many frozen yogurt bars, *y*, does each class get?

Problem Solving Real World

15. Rusty has a cap collection. He has 2 shelves with 9 football team caps on each shelf. He has 3 shelves with 11 baseball caps on each shelf. He gives his best friend 2 football caps and 3 baseball caps. How many caps, *c*, does Rusty have now?

16. Yuki pays $3 for each of 4 headbands and $2 for each of 5 barrettes. How much more money, *m*, does Yuki pay for all the headbands than for all the barrettes?

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Lesson Check

Fill in the bubble completely to show your answer.

17. Klein is using balloons to decorate for a party. She has 3 groups of 5 pink balloons and 4 groups of 3 yellow balloons. She also has 6 white balloons. Which equation could be used to find, b, the total number of balloons?

- (A) $3 \times 5 + 4 \times 3 = b$
- (B) $3 + 5 + 4 + 3 + 6 = b$
- (C) $3 \times 5 + 4 \times 3 + 6 = b$
- (D) $3 \times 5 \times 4 \times 3 = b$

18. For the bake sale, 6 people each bake two dozen oatmeal cookies. Each person eats 2 cookies and then delivers the remaining cookies to the bake sale. Which equation could be used to find, c, the number of oatmeal cookies at the bake sale?

- (A) $6 \times 2 \times 12 - 6 \times 2 = c$
- (B) $6 \times 12 - 6 \times 2 = c$
- (C) $2 \times 12 - 6 \times 2 = c$
- (D) $6 \times 2 - 6 \times 2 = c$

19. Jose used 15 inches of blue ribbon, 14 inches of yellow ribbon, and 3 feet of red ribbon to decorate his box of cookies. How many inches of ribbon did Jose use?

- (A) 65 inches
- (B) 32 inches
- (C) 93 inches
- (D) 29 inches

20. William used 10 ounces of plain milk and 4 pints of chocolate milk when making the restaurant milkshake recipe. How many ounces of milk did William use? (Hint: There are 16 ounces in a pint.)

- (A) 64 ounces
- (B) 40 ounces
- (C) 26 ounces
- (D) 74 ounces

Spiral Review

21. Rona has 7 packs of 8 scented pens. She puts 12 pens in each of 4 bags. How many pens are left over?

- (A) 96
- (B) 56
- (C) 8
- (D) 4

22. A plant nursery has 1,054 plants to display. If each display has 92 plants, how many displays will be full?

- (A) 10
- (B) 11
- (C) 12
- (D) 15

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Chapter 2

Chapter Review

1. Choose the word that makes the sentence true.
For an estimate of the quotient of 1,875 ÷ 9,

the first digit will be in the [ones / tens / hundreds / thousands] place.

2. For numbers 2a–2d, select True or False to indicate whether the quotient is correct.

2a.	$12{,}567 \div 45 = 279\frac{12}{45}$	○ True	○ False
2b.	$6{,}004 \div 36 = 166\frac{28}{36}$	○ True	○ False
2c.	$61{,}809 \div 27 = 2{,}289\frac{6}{27}$	○ True	○ False
2d.	$4{,}958 \div 63 = 708\frac{44}{63}$	○ True	○ False

3. Chen is checking a division problem by doing the following:

$$\begin{array}{r} 152 \\ \times \quad 4 \\ \hline \\ \hline \\ + \quad 2 \\ \hline \\ \hline \end{array}$$

What problem is Chen checking?

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4. Isaiah wrote this problem in his notebook. Using the vocabulary boxes, label the parts of the division problem. Then using the vocabulary, explain how Isaiah can check whether his quotient is correct.

quotient | divisor | dividend

$$\begin{array}{r} 72 \\ 9\overline{)648} \end{array}$$

____

____

____

5. Tammy says the quotient of 793 ÷ 6 is $132\frac{1}{6}$. Use multiplication to show if Tammy's answer is correct.

6. A city has 25,967 bins for recycling paper. It gives each of the 89 schools in the city the same number of bins.

6a. How many bins does each school get? __________ bins

6b. How many bins are left over? __________ bins left over

7. Dana is making a seating chart for an awards banquet. There are 184 people coming to the banquet. If 8 people can be seated at each table, how many tables will be needed for the awards banquet?

__________ tables

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8. Carlos, Vern, and Georgia go to pick strawberries. Carlos picks 3 times as many pounds as Vern. Georgia picked 5 times as many pounds as Vern. Together, Carlos and Georgia picks 16 pounds of strawberries.

8a. Draw a diagram to represent the situation.

8b. How many pounds of strawberries did each person pick?

Carlos: _____ pounds

Vern: _____ pounds

Georgia: _____ pounds

9. For numbers 9a–9c, choose Yes or No to indicate whether the statement is correct.

9a. $5{,}210 \div 17$ is $306\frac{8}{17}$. ○ Yes ○ No

9b. $8{,}808 \div 42$ is $209\frac{30}{42}$. ○ Yes ○ No

9c. $1{,}248 \div 24$ is 51. ○ Yes ○ No

10. Draw a bar model to represent the equation. Then solve.

10a. $4d = 124$

_____ _____ _____ _____

d = _____

10b. $a \div 3 = 16$

_____ _____ _____

a = _____

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11. Divide. Show your work.

$17\overline{)5{,}210}$

12. Tempest wants to buy a new camera. She wants to save enough money each month to buy it in 7 months. She saves $46 each month. Write an equation and solve to find the cost c of the camera.

13. Samuel needs 233 feet of wood to build a fence. The wood comes in lengths of 11 feet.

Part A

How many total pieces of wood will Samuel need? Explain your answer.

Part B

Theresa needs twice as many feet of wood as Samuel. How many pieces of wood does Theresa need? Explain your answer.

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14. Russ and Vickie are trying to solve this problem:
There are 146 students taking buses to the museum. If each bus holds 24 students, how many buses will they need?

Russ says the students need 6 buses. Vickie says they need 7 buses. Who is correct? Explain your reasoning.

15. Lashondra's playlist has 9 times as many songs as Harriette's playlist. Velora has 7 times as many songs on her playlist as Harriette does. If they combined their playlists, they would have 986 songs.

15a. Draw a diagram to represent the situation.

15b. How many songs does each playlist contain?

Lashondra's playlist: _____ songs

Harriette's playlist: _____ songs

Velora's playlist: _____ songs

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16. Steve is buying apples for the fifth grade. Each bag holds 12 apples. If there are 75 students total, how many bags of apples will Steve need to buy if he wants to give one apple to each student?

_____ bags

17. Keona gathers 144 old family photos and puts them into an album. Each page of the album holds 6 photos. Write an equation and solve to find the number of pages p that he fills in the album.

18. Paula has a dog that weighs 3 times as much as Carla's dog. The total weight of the dogs is 48 pounds. How much does Paula's dog weigh?

Draw a diagram to find the weight of Paula's dog.

19. Dylan estimates the first digit in the quotient.

$$46\overline{)3{,}662}$$

Dylan's estimate is [too high. / too low].

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