Chapter 4

School-Home Letter

Vocabulary

Distributive Property The property that states that dividing a sum by a number is the same as dividing each addend by the number and then adding the quotients

multiple A number that is the product of a given number and a counting number

remainder The amount left over when a number cannot be divided evenly

Dear Family,

During the next few weeks, our math class will be learning how to model division, and use the division algorithm to divide up to three-digit dividends by 1-digit divisors. The class will learn different methods to divide, including using models, repeated subtraction, and the standard division algorithm. We will also learn to divide with remainders.

You can expect to see homework that provides practice modeling division and using the division algorithm.

Here is a sample of how your child will be taught to model division using the Distributive Property.

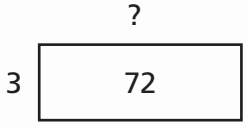
MODEL Use the Distributive Property to Divide

This is how we will divide using the Distributive Property.

Find $72 \div 3$.

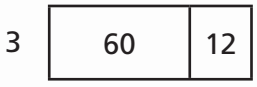
STEP 1

Draw a rectangle to model $72 \div 3$.



STEP 2

Think of 72 as $60 + 12$. Break apart the model into two rectangles to show $(60 + 12) \div 3$.



STEP 3

Each rectangle models a division.

$$72 \div 3 = (60 \div 3) + (12 \div 3)$$
$$= 20 + 4$$
$$= 24$$

So, $72 \div 3 = 24$.

Tips

Whenever possible, try to use division facts and multiples of ten when breaking your rectangle into smaller rectangles. In the problem at the left, $60 \div 3$ is easy to find mentally.

Capítulo 4

Carta para la casa

Vocabulario

propiedad distributiva La propiedad que establece que dividir una suma entre un número es lo mismo que dividir cada sumando entre el número y luego sumar los cocientes

múltiplo Un número que es el producto de un número determinado y de un número positivo distinto de cero

residuo La cantidad sobrante cuando un número no se puede dividir en partes iguales

Querida familia,

Durante las próximas semanas, en la clase de matemáticas aprenderemos a representar la división y a usar el algoritmo de la división para dividir dividendos de hasta tres dígitos entre divisores de un dígito. Para ello, desarrollaremos diferentes métodos para dividir, incluyendo usar modelos, resta repetida y el algoritmo de la división estándar. También aprenderemos a dividir con residuos.

Llevaré a la casa tareas con actividades para representar la división y para usar el algoritmo de la división.

Este es un ejemplo de la manera como aprenderemos a representar la división usando la propiedad distributiva.

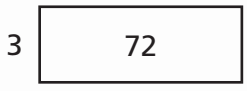
MODELO Usar la propiedad distributiva para dividir

Así es como dividiremos usando la propiedad distributiva.

Halla $72 \div 3$.

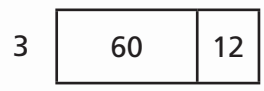
PASO 1

Dibuja un rectángulo para representar $72 \div 3$.



PASO 2

Piensa en 72 como $60 + 12$.
Divide el modelo en dos rectángulos para mostrar $(60 + 12) \div 3$.



PASO 3

Cada rectángulo representa una división.

$$72 \div 3 = (60 \div 3) + (12 \div 3)$$
$$= 20 + 4$$
$$= 24$$

Por tanto, $72 \div 3 = 24$.

Pistas

En la medida de lo posible, trata de usar operaciones de división y múltiplos de diez cuando dividas el modelo en rectángulos más pequeños. En el problema anterior, $60 \div 3$ es fácil de hallar mentalmente.

Name _____

Estimate Quotients Using Multiples

COMMON CORE STANDARD MACC.4.NBT.2.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Find two numbers the quotient is between. Then estimate the quotient.

1. $175 \div 6$

between 20 and 30

about 30

Think: $6 \times 20 = 120$ and $6 \times 30 = 180$. So, $175 \div 6$ is between 20 and 30. Since 175 is closer to 180 than to 120, the quotient is about 30.

2. $53 \div 3$

_____

_____

3. $75 \div 4$

_____

_____

4. $215 \div 9$

_____

_____

5. $284 \div 5$

_____

_____

6. $191 \div 3$

_____

_____

7. $100 \div 7$

_____

_____

8. $438 \div 7$

_____

_____

9. $103 \div 8$

_____

_____

10. $255 \div 9$

_____

_____

Problem Solving REAL WORLD

11. Joy collected 287 aluminum cans in 6 hours. About how many cans did she collect per hour?

_____

12. Paul sold 162 cups of lemonade in 5 hours. About how many cups of lemonade did he sell each hour?

_____

PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. Abby did 121 sit-ups in 8 minutes. Which is the best estimate of the number of sit-ups she did in 1 minute?

   Ⓐ about 12

   Ⓑ about 15

   Ⓒ about 16

   Ⓓ about 20

2. The Garibaldi family drove 400 miles in 7 hours. Which is the best estimate of the number of miles they drove in 1 hour?

   Ⓐ about 40 miles

   Ⓑ about 50 miles

   Ⓒ about 60 miles

   Ⓓ about 70 miles

Spiral Review (MACC.4.OA.1.2, MACC.4.OA.1.3, MACC.4.NBT.2.4, MACC.4.NBT.2.5)

3. Twelve boys collected 16 aluminum cans each. Fifteen girls collected 14 aluminum cans each. How many more cans did the girls collect than the boys? **(Lesson 3.7)**

   Ⓐ 8

   Ⓑ 12

   Ⓒ 14

   Ⓓ 18

4. George bought 30 packs of football cards. There were 14 cards in each pack. How many cards did George buy? **(Lesson 3.1)**

   Ⓐ 170

   Ⓑ 320

   Ⓒ 420

   Ⓓ 520

5. Sarah made a necklace using 5 times as many blue beads as white beads. She used a total of 30 beads. How many blue beads did Sarah use? **(Lesson 2.2)**

   Ⓐ 5

   Ⓑ 6

   Ⓒ 24

   Ⓓ 25

6. This year, Ms. Webster flew 145,000 miles on business. Last year, she flew 83,125 miles on business. How many more miles did Ms. Webster fly on business this year? **(Lesson 1.7)**

   Ⓐ 61,125 miles

   Ⓑ 61,875 miles

   Ⓒ 61,985 miles

   Ⓓ 62,125 miles

Name _____

Remainders

COMMON CORE STANDARD MACC.4.NBT.2.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Use counters to find the quotient and remainder.

1. $13 \div 4$
3 r1

2. $24 \div 7$

3. $39 \div 5$

4. $36 \div 8$

5. $6\overline{)27}$

6. $25 \div 9$

7. $3\overline{)17}$

8. $26 \div 4$

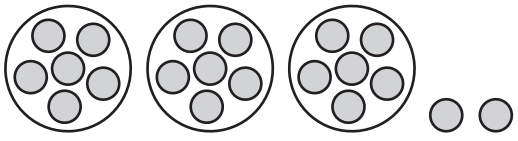
Divide. Draw a quick picture to help.

9. $14 \div 3$

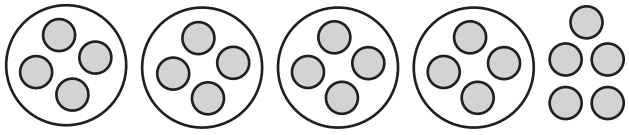
10. $5\overline{)29}$

Problem Solving REAL WORLD

11. What is the quotient and remainder in the division problem modeled below?



12. Mark drew the following model and said it represented the problem $21 \div 4$. Is Mark's model correct? If so, what is the quotient and remainder? If not, what is the correct quotient and remainder?



PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. What is the quotient and remainder for $32 \div 6$?

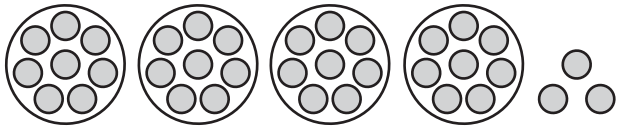
   (A) 4 r3

   (B) 5 r1

   (C) 5 r2

   (D) 6 r1

2. What is the remainder in the division problem modeled below?



   (A) 8

   (B) 4

   (C) 3

   (D) 1

Spiral Review (MACC.4.OA.1.3, MACC.4.NBT.1.2, MACC.4.NBT.2.5)

3. Each kit to build a castle contains 235 parts. How many parts are in 4 of the kits? (Lesson 2.6)

   (A) 1,020

   (B) 940

   (C) 920

   (D) 840

4. In 2010, the population of Alaska was about 710,200. What is this number written in word form? (Lesson 1.2)

   (A) seven hundred ten thousand, two

   (B) seven hundred twelve thousand

   (C) seventy-one thousand, two

   (D) seven hundred ten thousand, two hundred

5. At the theater, one section of seats has 8 rows with 12 seats in each row. In the center of the first 3 rows are 4 broken seats that cannot be used. How many seats can be used in the section? (Lesson 2.9)

   (A) 84

   (B) 88

   (C) 92

   (D) 96

6. What partial products are shown by the model below? (Lesson 3.4)

   (A) 300, 24

   (B) 300, 600, 40, 60

   (C) 300, 60, 40, 24

   (D) 300, 180, 40, 24

Name _____

Interpret the Remainder

COMMON CORE STANDARD MACC.4.OA.1.3
Use the four operations with whole numbers to solve problems.

Interpret the remainder to solve.

1. Hakeem has 100 tomato plants. He wants to plant them in rows of 8. How many full rows will he have?

Think: $100 \div 8$ is 12 with a remainder of 4. The question asks "how many full rows," so use only the quotient.

12 full rows

2. A teacher has 27 students in her class. She asks the students to form as many groups of 4 as possible. How many students will not be in a group?

_____

3. A sporting goods company can ship 6 footballs in each carton. How many cartons are needed to ship 75 footballs?

_____

4. A carpenter has a board that is 10 feet long. He wants to make 6 table legs that are all the same length. What is the longest each leg can be?

_____

5. Allie wants to arrange her flower garden in 8 equal rows. She buys 60 plants. What is the greatest number of plants she can put in each row?

_____

Problem Solving REAL WORLD

6. Joanna has 70 beads. She uses 8 beads for each bracelet. She makes as many bracelets as possible. How many beads will Joanna have left over?

_____

7. A teacher wants to give 3 markers to each of her 25 students. Markers come in packages of 8. How many packages of markers will the teacher need?

_____

PARCC TEST PREP

Lesson Check (MACC.4.OA.1.3)

1. Marcus sorts his 85 baseball cards into stacks of 9 cards each. How many stacks of 9 cards can Marcus make?

Ⓐ 4

Ⓑ 8

Ⓒ 9

Ⓓ 10

2. A minivan can hold up to 7 people. How many minivans are needed to take 45 people to a basketball game?

Ⓐ 3

Ⓑ 5

Ⓒ 6

Ⓓ 7

Spiral Review (MACC.4.OA.1.1, MACC.4.NBT.2.4, MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. Mrs. Wilkerson cut some oranges into 20 equal pieces to be shared by 6 friends. How many pieces did each person get and how many pieces were left over? (Lesson 4.2)

Ⓐ 2 pieces with 4 pieces left over

Ⓑ 3 pieces with 2 pieces left over

Ⓒ 3 pieces with 4 pieces left over

Ⓓ 4 pieces with 2 pieces left over

4. A school bought 32 new desks. Each desk cost $24. Which is the best estimate of how much the school spent on the new desks? (Lesson 3.2)

Ⓐ $500

Ⓑ $750

Ⓒ $1,000

Ⓓ $1,200

5. Kris has a box of 8 crayons. Sylvia's box has 6 times as many crayons as Kris's box. How many crayons are in Sylvia's box? (Lesson 2.1)

Ⓐ 48

Ⓑ 42

Ⓒ 36

Ⓓ 4

6. Yesterday, 1,743 people visited the fair. Today, there are 576 more people at the fair than yesterday. How many people are at the fair today? (Lesson 1.8)

Ⓐ 1,167

Ⓑ 2,219

Ⓒ 2,319

Ⓓ 2,367

Name _____

Divide Tens, Hundreds, and Thousands

COMMON CORE STANDARD MACC.4.NBT.2.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Use basic facts and place value to find the quotient.

1. $3{,}600 \div 4 =$ 900

Think: 3,600 is 36 hundreds.

Use the basic fact $36 \div 4 = 9$.

So, 36 hundreds $\div 4 = 9$ hundreds, or 900.

2. $240 \div 6 =$ _____ **3.** $5{,}400 \div 9 =$ _____ **4.** $300 \div 5 =$ _____

5. $4{,}800 \div 6 =$ _____ **6.** $420 \div 7 =$ _____ **7.** $150 \div 3 =$ _____

8. $6{,}300 \div 7 =$ _____ **9.** $1{,}200 \div 4 =$ _____ **10.** $360 \div 6 =$ _____

Find the quotient.

11. $28 \div 4 =$ _____ **12.** $18 \div 3 =$ _____ **13.** $45 \div 9 =$ _____

$280 \div 4 =$ _____ $180 \div 3 =$ _____ $450 \div 9 =$ _____

$2{,}800 \div 4 =$ _____ $1{,}800 \div 3 =$ _____ $4{,}500 \div 9 =$ _____

Problem Solving REAL WORLD

14. At an assembly, 180 students sit in 9 equal rows. How many students sit in each row?

_____

15. Hilary can read 560 words in 7 minutes. How many words can Hilary read in 1 minute?

_____

16. A company produces 7,200 gallons of bottled water each day. The company puts 8 one-gallon bottles in each carton. How many cartons are needed to hold all the one-gallon bottles produced in one day?

_____

17. An airplane flew 2,400 miles in 4 hours. If the plane flew the same number of miles each hour, how many miles did it fly in 1 hour?

_____

PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. A baseball player hits a ball 360 feet to the outfield. It takes the ball 4 seconds to travel this distance. How many feet does the ball travel in 1 second?

   Ⓐ 9 feet
   Ⓑ 40 feet
   Ⓒ 90 feet
   Ⓓ 900 feet

2. Sebastian rides his bike 2,000 meters in 5 minutes. How many meters does he bike in 1 minute?

   Ⓐ 4 meters
   Ⓑ 40 meters
   Ⓒ 50 meters
   Ⓓ 400 meters

Spiral Review (MACC.4.OA.1.2, MACC.4.OA.1.3, MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. A full container of juice holds 64 ounces. How many 7-ounce servings of juice are in a full container? (Lesson 4.3)

   Ⓐ 1
   Ⓑ 8
   Ⓒ 9
   Ⓓ 10

4. Paolo pays $244 for 5 identical calculators. Which is the best estimate of how much Paolo pays for one calculator? (Lesson 4.1)

   Ⓐ $40
   Ⓑ $50
   Ⓒ $60
   Ⓓ $245

5. A football team paid $28 per jersey. They bought 16 jerseys. How much money did the team spend on jerseys? (Lesson 3.5)

   Ⓐ $44
   Ⓑ $196
   Ⓒ $408
   Ⓓ $448

6. Suzanne bought 50 apples at the apple orchard. She bought 4 times as many red apples as green apples. How many more red apples than green apples did Suzanne buy? (Lesson 2.2)

   Ⓐ 10
   Ⓑ 25
   Ⓒ 30
   Ⓓ 40

Name _____

Estimate Quotients Using Compatible Numbers

COMMON CORE STANDARD MACC.4.NBT.2.6

Use place value understandings and properties of operations to perform multi-digit arithmetic.

Use compatible numbers to estimate the quotient.

1. 389 ÷ 4

400 ÷ 4 = 100

2. 358 ÷ 3

3. 784 ÷ 8

4. 179 ÷ 9

5. 315 ÷ 8

6. 2,116 ÷ 7

7. 4,156 ÷ 7

8. 474 ÷ 9

Use compatible numbers to find two estimates that the quotient is between.

9. 1,624 ÷ 3

10. 2,593 ÷ 6

11. 1,045 ÷ 2

12. 1,754 ÷ 9

13. 2,363 ÷ 8

14. 1,649 ÷ 5

15. 5,535 ÷ 7

16. 3,640 ÷ 6

Problem Solving REAL WORLD

17. A CD store sold 3,467 CDs in 7 days. About the same number of CDs were sold each day. About how many CDs did the store sell each day?

18. Marcus has 731 books. He puts about the same number of books on each of 9 shelves in his a bookcase. About how many books are on each shelf?

PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. Jamal is planting seeds for a garden nursery. He plants 9 seeds in each container. If Jamal has 296 seeds to plant, about how many containers will he use?

   Ⓐ about 20
   Ⓑ about 30
   Ⓒ about 200
   Ⓓ about 300

2. Winona purchased a set of vintage beads. There are 2,140 beads in the set. If she uses the beads to make bracelets that have 7 beads each, about how many bracelets can she make?

   Ⓐ about 30
   Ⓑ about 140
   Ⓒ about 300
   Ⓓ about 14,000

Spiral Review (MACC.4.NBT.1.1, MACC.4.NBT.1.3, MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. A train traveled 360 miles in 6 hours. How many miles per hour did the train travel? **(Lesson 4.4)**

   Ⓐ 60 miles per hour
   Ⓑ 66 miles per hour
   Ⓒ 70 miles per hour
   Ⓓ 600 miles per hour

4. An orchard has 12 rows of pear trees. Each row has 15 pear trees. How many pear trees are there in the orchard? **(Lesson 3.6)**

   Ⓐ 170
   Ⓑ 180
   Ⓒ 185
   Ⓓ 190

5. Megan rounded 366,458 to 370,000. To which place did Megan round the number? **(Lesson 1.4)**

   Ⓐ hundred thousands
   Ⓑ ten thousands
   Ⓒ thousands
   Ⓓ hundreds

6. Mr. Jessup, an airline pilot, flies 1,350 miles a day. How many miles will he fly in 8 days? **(Lesson 2.11)**

   Ⓐ 1,358 miles
   Ⓑ 8,400 miles
   Ⓒ 10,800 miles
   Ⓓ 13,508 miles

Name _____

Division and the Distributive Property

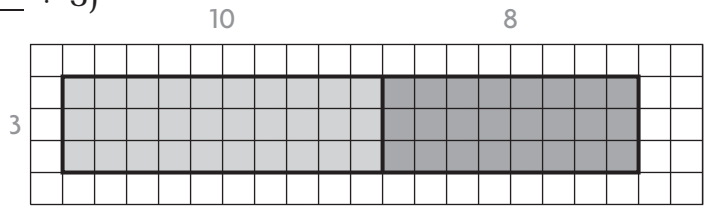
COMMON CORE STANDARD MACC.4.NBT.2.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Find the quotient.

1. $54 \div 3 = (\underline{30} \div 3) + (\underline{24} \div 3)$

$= \underline{10} + \underline{8}$

$= \underline{18}$



2. $81 \div 3 =$ _____

3. $232 \div 4 =$ _____

4. $305 \div 5 =$ _____

5. $246 \div 6 =$ _____

6. $69 \div 3 =$ _____

7. $477 \div 9 =$ _____

8. $224 \div 7 =$ _____

9. $72 \div 4 =$ _____

10. $315 \div 3 =$ _____

Problem Solving REAL WORLD

11. Cecily picked 219 apples. She divided the apples equally into 3 baskets. How many apples are in each basket?

_____

12. Jordan has 260 basketball cards. He divides them into 4 equal groups. How many cards are in each group?

_____

13. The Wilsons drove 324 miles in 6 hours. If they drove the same number of miles each hour, how many miles did they drive in 1 hour?

_____

14. Phil has 189 stamps to put into his stamp album. He puts the same number of stamps on each of 9 pages. How many stamps does Phil put on each page?

_____

PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. A landscaping company planted 176 trees in 8 equal rows in the new park. How many trees did the company plant in each row?

   Ⓐ 18

   Ⓑ 20

   Ⓒ 22

   Ⓓ 24

2. Arnold can do 65 pushups in 5 minutes. How many pushups can he do in 1 minute?

   Ⓐ 11

   Ⓑ 13

   Ⓒ 15

   Ⓓ 17

Spiral Review (MACC.4.OA.1.3, MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. Last Saturday, there were 1,486 people at the Cineplex. There were about the same number of people in each of the 6 theaters. Which is the best estimate of the number of people in each theater? **(Lesson 4.5)**

   Ⓐ between 20 and 30

   Ⓑ between 80 and 90

   Ⓒ between 100 and 200

   Ⓓ between 200 and 300

4. Nancy walked 50 minutes each day for 4 days last week. Gillian walked 35 minutes each day for 6 days last week. Which statement is true? **(Lesson 3.7)**

   Ⓐ Gillian walked 10 minutes more than Nancy.

   Ⓑ Gillian walked 20 minutes more than Nancy.

   Ⓒ Nancy walked 10 minutes more than Gillian.

   Ⓓ Nancy walked 15 minutes more than Gillian.

5. Three boys share 28 toy cars equally. Which best describes how the cars are shared? **(Lesson 4.2)**

   Ⓐ Each gets 3 cars with 1 left over.

   Ⓑ Each gets 8 cars with 2 left over.

   Ⓒ Each gets 9 cars with 1 left over.

   Ⓓ Each gets 10 cars with 2 left over.

6. An airplane flies at a speed of 474 miles per hour. How many miles does the plane fly in 5 hours? **(Lesson 2.11)**

   Ⓐ 2,070 miles

   Ⓑ 2,140 miles

   Ⓒ 2,370 miles

   Ⓓ 2,730 miles

Name _____

Divide Using Repeated Subtraction

COMMON CORE STANDARD MACC.4.NBT.2.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Use repeated subtraction to divide.

1. $42 \div 3 =$ 14

2. $72 \div 4 =$ _____

3. $93 \div 3 =$ _____

$$
\begin{array}{r|l}
3\overline{)42} & \\
-30 \leftarrow 10 \times 3 & 10 \\
\hline
12 & \\
-12 \leftarrow 4 \times 3 & +4 \\
\hline
0 & 14
\end{array}
$$

4. $35 \div 4$ _____

5. $93 \div 10$ _____

6. $86 \div 9$ _____

Draw a number line to divide.

7. $70 \div 5 =$ _____

Problem Solving REAL WORLD

8. Gretchen has 48 small shells. She uses 2 shells to make one pair of earrings. How many pairs of earrings can she make?

_____

9. James wants to purchase a telescope for $54. If he saves $3 per week, in how many weeks will he have saved enough to purchase the telescope?

_____

PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. Randall collects postcards that his friends send him when they travel. He can put 6 cards on one scrapbook page. How many pages does Randall need to fit 42 postcards?

   Ⓐ 3

   Ⓑ 4

   Ⓒ 6

   Ⓓ 7

2. Ari stocks shelves at a grocery store. He puts 35 cans of juice on each shelf. The shelf has 4 equal rows and another row with only 3 cans. How many cans are in each of the equal rows?

   Ⓐ 6

   Ⓑ 7

   Ⓒ 8

   Ⓓ 9

Spiral Review (MACC.4.OA.1.3, MACC.4.NBT.1.1, MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. Fiona sorted her CDs into separate bins. She placed 4 CDs in each bin. If she has 160 CDs, how many bins did she fill? **(Lesson 4.4)**

   Ⓐ 4

   Ⓑ 16

   Ⓒ 40

   Ⓓ 156

4. Eamon is arranging 39 books on 3 shelves. If he puts the same number of books on each shelf, how many books will there be on each shelf? **(Lesson 4.6)**

   Ⓐ 11

   Ⓑ 12

   Ⓒ 13

   Ⓓ 14

5. A newborn boa constrictor measures 18 inches long. An adult boa constrictor measures 9 times the length of the newborn plus 2 inches. How long is the adult? **(Lesson 2.12)**

   Ⓐ 142 inches

   Ⓑ 162 inches

   Ⓒ 164 inches

   Ⓓ 172 inches

6. Madison has 6 rolls of coins. Each roll has 20 coins. How many coins does Madison have in all? **(Lesson 2.3)**

   Ⓐ 110

   Ⓑ 120

   Ⓒ 125

   Ⓓ 130

Name _____

Divide Using Partial Quotients

COMMON CORE STANDARD MACC.4.NBT.2.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Divide. Use partial quotients.

1. $8\overline{)184}$

-80 10×8 10
104
-80 10×8 10
24
-24 3×8 $+3$
0 23

2. $6\overline{)258}$

3. $5\overline{)630}$

Divide. Use rectangular models to record the partial quotients.

4. $246 \div 3 =$ _____

5. $126 \div 2 =$ _____

6. $605 \div 5 =$ _____

Divide. Use either way to record the partial quotients.

7. $492 \div 3 =$ _____

8. $224 \div 7 =$ _____

9. $692 \div 4 =$ _____

Problem Solving REAL WORLD

10. Allison took 112 photos on vacation. She wants to put them in a photo album that holds 4 photos on each page. How many pages can she fill?

_____

11. Hector saved $726 in 6 months. He saved the same amount each month. How much did Hector save each month?

_____

PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. Annaka used partial quotients to divide $145 \div 5$. Which shows a possible sum of partial quotients?

   Ⓐ $50 + 50 + 45$

   Ⓑ $100 + 40 + 5$

   Ⓒ $10 + 10 + 9$

   Ⓓ $10 + 4 + 5$

2. Mel used partial quotients to find the quotient $378 \div 3$. Which might show the partial quotients that Mel found?

   Ⓐ 100, 10, 10, 9

   Ⓑ 100, 10, 10, 6

   Ⓒ 100, 30, 30, 6

   Ⓓ 300, 70, 8

Spiral Review (MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. What are the partial products of 42×5? **(Lesson 2.7)**

   Ⓐ 9 and 7

   Ⓑ 20 and 10

   Ⓒ 200 and 7

   Ⓓ 200 and 10

4. Mr. Watson buys 4 gallons of paint that cost $34 per gallon. How much does Mr. Watson spend on paint? **(Lesson 2.10)**

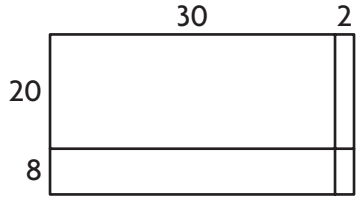
   Ⓐ $38

   Ⓑ $126

   Ⓒ $136

   Ⓓ $1,216

5. Use the area model to find the product 28×32. **(Lesson 3.3)**



   Ⓐ 840

   Ⓑ 856

   Ⓒ 880

   Ⓓ 896

6. An adult male lion eats about 108 pounds of meat per week. About how much meat does an adult male lion eat in one day? **(Lesson 4.1)**

   Ⓐ about 14 pounds

   Ⓑ about 15 pounds

   Ⓒ about 16 pounds

   Ⓓ about 17 pounds

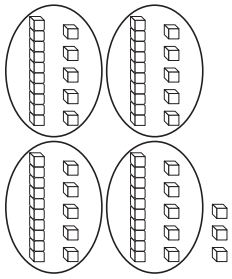
Name _____

Model Division with Regrouping

COMMON CORE STANDARD MACC.4.NBT.2.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Divide. Use base-ten blocks.

1. $63 \div 4$ 15 r3



2. $83 \div 3$ _____

Divide. Draw quick pictures. Record the steps.

3. $85 \div 5$ _____

4. $97 \div 4$ _____

Problem Solving REAL WORLD

5. Tamara sold 92 cold drinks during her 2-hour shift at a festival food stand. If she sold the same number of drinks each hour, how many cold drinks did she sell each hour?

_____

6. In 3 days Donald earned $42 running errands. He earned the same amount each day. How much did Donald earn from running errands each day?

_____

PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. Gail bought 80 buttons to put on the shirts she makes. She uses 5 buttons for each shirt. How many shirts can Gail make with the buttons she bought?

   Ⓐ 14
   Ⓑ 16
   Ⓒ 17
   Ⓓ 18

2. Marty counted how many breaths he took in 3 minutes. In that time, he took 51 breaths. He took the same number of breaths each minute. How many breaths did Marty take in one minute?

   Ⓐ 15
   Ⓑ 16
   Ⓒ 17
   Ⓓ 19

Spiral Review (MACC.4.NBT.2.4, MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. Kate is solving brain teasers. She solved 6 brain teasers in 72 minutes. How long did she spend on each brain teaser? **(Lesson 4.7)**

   Ⓐ 12 minutes
   Ⓑ 14 minutes
   Ⓒ 18 minutes
   Ⓓ 22 minutes

4. Jenny works at a package delivery store. She puts mailing stickers on packages. Each package needs 5 stickers. How many stickers will Jenny use if she is mailing 105 packages? **(Lesson 2.11)**

   Ⓐ 725
   Ⓑ 625
   Ⓒ 525
   Ⓓ 21

5. The Puzzle Company packs standard-sized puzzles into boxes that hold 8 puzzles. How many boxes would it take to pack up 192 standard-sized puzzles? **(Lesson 4.6)**

   Ⓐ 12
   Ⓑ 16
   Ⓒ 22
   Ⓓ 24

6. Mt. Whitney in California is 14,494 feet tall. Mt. McKinley in Alaska is 5,826 feet taller than Mt. Whitney. How tall is Mt. McKinley? **(Lesson 1.6)**

   Ⓐ 21,310 feet
   Ⓑ 20,320 feet
   Ⓒ 20,230 feet
   Ⓓ 19,310 feet

Name _____

Place the First Digit

COMMON CORE STANDARD MACC.4.NBT.2.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Divide.

1. $3\overline{)186}$

$$\begin{array}{r} 62 \\ 3\overline{)186} \\ -18\downarrow \\ \hline 06 \\ -6 \\ \hline 0 \end{array}$$

2. $4\overline{)298}$

3. $3\overline{)461}$

4. $9\overline{)315}$

5. $2\overline{)766}$

6. $4\overline{)604}$

7. $6\overline{)796}$

8. $5\overline{)449}$

9. $6\overline{)756}$

10. $7\overline{)521}$

11. $5\overline{)675}$

12. $8\overline{)933}$

Problem Solving REAL WORLD

13. There are 132 projects in the science fair. If 8 projects can fit in a row, how many full rows of projects can be made? How many projects are in the row that is not full?

_____

14. There are 798 calories in six 10-ounce bottles of apple juice. How many calories are there in one 10-ounce bottle of apple juice?

_____

PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. To divide $572 \div 4$, Stanley estimated to place the first digit of the quotient. In which place is the first digit of the quotient?

   (A) ones
   (B) tens
   (C) hundreds
   (D) thousands

2. Onetta biked 325 miles in 5 days. If she biked the same number of miles each day, how far did she bike each day?

   (A) 1,625 miles
   (B) 320 miles
   (C) 65 miles
   (D) 61 miles

Spiral Review (MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. Mort makes beaded necklaces that he sells for $\$32$ each. About how much will Mort make if he sells 36 necklaces at the local art fair? **(Lesson 3.2)**

   (A) $\$120$
   (B) $\$900$
   (C) $\$1{,}200$
   (D) $\$1{,}600$

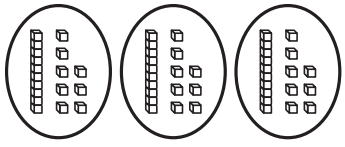
4. Which is the best estimate of 54×68? **(Lesson 3.2)**

   (A) 4,200
   (B) 3,500
   (C) 3,000
   (D) 350

5. Ms. Eisner pays $\$888$ for 6 nights in a hotel. How much does Ms. Eisner pay per night? **(Lesson 4.8)**

   (A) $\$5{,}328$
   (B) $\$882$
   (C) $\$148$
   (D) $\$114$

6. Which division problem does the model show? **(Lesson 4.9)**



   (A) $42 \div 3$
   (B) $44 \div 3$
   (C) $51 \div 3$
   (D) $54 \div 3$

Name _____

Divide by 1-Digit Numbers

COMMON CORE STANDARD MACC.4.NBT.2.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Divide and check.

1. $2\overline{)636}$

$$\begin{array}{r} 318 \\ 2\overline{)636} \\ -\,6\downarrow \\ \hline 03 \\ -\,2\downarrow \\ \hline 16 \\ -\,16 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 318 \\ \times\ \ 2 \\ \hline 636 \end{array}$$

2. $4\overline{)631}$

3. $8\overline{)906}$

4. $6\overline{)6{,}739}$

5. $4\overline{)2{,}328}$

6. $5\overline{)7{,}549}$

Problem Solving REAL WORLD

Use the table for 7 and 8.

7. The Briggs rented a car for 5 weeks. What was the cost of their rental car per week?

_____

8. The Lees rented a car for 4 weeks. The Santos rented a car for 2 weeks. Whose weekly rental cost was lower? **Explain**.

_____

_____

Rental Car Costs	
Family	**Total Cost**
Lee	$632
Brigg	$985
Santo	$328

PARCC TEST PREP

Lesson Check (MACC.4.NBT.2.6)

1. Which expression can be used to check the quotient $646 \div 3$?

   Ⓐ $(251 \times 3) + 1$

   Ⓑ $(215 \times 3) + 2$

   Ⓒ $(215 \times 3) + 1$

   Ⓓ 646×3

2. There are 8 volunteers at the telethon. The goal for the evening is to raise $952. If each volunteer raises the same amount, what is the minimum amount each needs to raise to meet the goal?

   Ⓐ $7,616

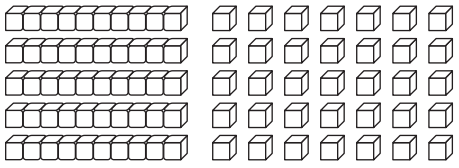
   Ⓑ $944

   Ⓒ $119

   Ⓓ $106

Spiral Review (MACC.4.OA.1.3, MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. Which product is shown by the model? **(Lesson 2.5)**



   Ⓐ $5 \times 15 = 75$

   Ⓑ $5 \times 16 = 80$

   Ⓒ $5 \times 17 = 75$

   Ⓓ $5 \times 17 = 85$

4. The computer lab at a high school ordered 26 packages of CDs. There were 50 CDs in each package. How many CDs did the computer lab order? **(Lesson 3.1)**

   Ⓐ 1,330

   Ⓑ 1,300

   Ⓒ 1,030

   Ⓓ 130

5. Which of the following division problems has a quotient with the first digit in the hundreds place? **(Lesson 4.10)**

   Ⓐ $892 \div 9$

   Ⓑ $644 \div 8$

   Ⓒ $429 \div 5$

   Ⓓ $306 \div 2$

6. Sharon has 64 ounces of juice. She is going to use the juice to fill as many 6-ounce glasses as possible. She will drink the leftover juice. How much juice will Sharon drink? **(Lesson 4.3)**

   Ⓐ 4 ounces

   Ⓑ 6 ounces

   Ⓒ 10 ounces

   Ⓓ 12 ounces

Name _____

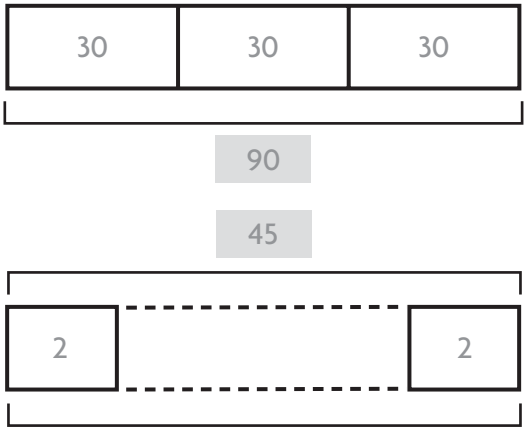
Problem Solving • Multistep Division Problems

COMMON CORE STANDARD MACC.4.OA.1.3
Use the four operations with whole numbers to solve problems.

Solve. Draw a diagram to help you.

1. There are 3 trays of eggs. Each tray holds 30 eggs. How many people can be served if each person eats 2 eggs?

Think: What do I need to find? How can I draw a diagram to help?



Multiply to find the total number of eggs.

Divide to find how many people can be served 2 eggs.

45 people can be served.

---

2. There are 8 pencils in a package. How many packages will be needed for 28 children if each child gets 4 pencils?

_____

---

3. There are 3 boxes of tangerines. Each box has 93 tangerines. The tangerines will be divided equally among 9 classrooms. How many tangerines will each classroom get?

_____

---

4. Misty has 84 photos from her vacation and 48 photos from a class outing. She wants to put all the photos in an album with 4 photos on each page. How many pages does she need?

_____

PARCC TEST PREP

Lesson Check (MACC.4.OA.1.3)

1. Gavin buys 89 blue pansies and 86 yellow pansies. He will plant the flowers in 5 rows with an equal number of plants in each row. How many plants will be in each row?

Ⓐ 875

Ⓑ 175

Ⓒ 35

Ⓓ 3

2. A pet store receives 7 boxes of cat food. Each box has 48 cans. The store wants to store the cans in equal stacks of 8 cans. How many stacks can be formed?

Ⓐ 8

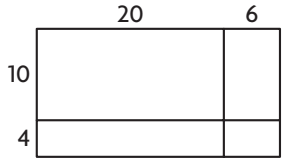
Ⓑ 42

Ⓒ 56

Ⓓ 336

Spiral Review (MACC.4.OA.1.3, MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. What product does the model show? **(Lesson 3.4)**



Ⓐ 284

Ⓑ 304

Ⓒ 340

Ⓓ 364

4. Mr. Hatch bought 4 round-trip airplane tickets for $417 each. He also paid $50 in baggage fees. How much did Mr. Hatch spend? **(Lesson 2.12)**

Ⓐ $467

Ⓑ $1,698

Ⓒ $1,718

Ⓓ $16,478

5. Mae read 976 pages in 8 weeks. She read the same number of pages each week. How many pages did she read each week? **(Lesson 4.10)**

Ⓐ 109

Ⓑ 120

Ⓒ 122

Ⓓ 984

6. Yolanda and her 3 brothers shared a box of 156 toy dinosaurs. About how many dinosaurs did each child get? **(Lesson 4.5)**

Ⓐ 40

Ⓑ 50

Ⓒ 60

Ⓓ 80

Name _____

COMMON CORE STANDARDS MACC.4.OA.1.3, MACC.4.NBT.2.6

Chapter 4 Extra Practice

Lessons 4.1, 4.5

Estimate the quotient.

1. $67 \div 4$ _____
2. $72 \div 5$ _____
3. $213 \div 3$ _____
4. $484 \div 6$ _____
5. $446 \div 7$ _____
6. $1{,}246 \div 4$ _____
7. $708 \div 9$ _____
8. $2{,}657 \div 3$ _____

Lesson 4.2

Use counters or quick pictures to find the quotient and remainder.

1. $44 \div 5$ _____
2. $8\overline{)21}$ _____
3. $4\overline{)75}$ _____
4. $76 \div 6$ _____

Lesson 4.3

Interpret the remainder to solve.

1. Kelly divides 29 markers equally among 7 friends. If Kelly keeps the leftover markers, how many markers will she keep?

   _____

2. Dave has a board that is 29 inches long. He cuts the board into 4 equal pieces. How long will each piece be?

   _____

3. Eight students can ride in each van. How many vans are needed for 29 students?

   _____

4. Mac has 40 ounces of juice. He pours 6 ounces in each glass. How many glasses can he fill?

   _____

Lesson 4.4

Use basic facts and place value to find the quotient.

1. $120 \div 4 =$ _____
2. $280 \div 7 =$ _____
3. $3{,}000 \div 5 =$ _____
4. $4{,}800 \div 6 =$ _____
5. $5{,}600 \div 8 =$ _____
6. $6{,}300 \div 9 =$ _____

Lessons 4.6 - 4.7

Choose a method and divide.

1. $68 \div 4$ _____ **2.** $48 \div 3$ _____ **3.** $108 \div 9$ _____

4. $74 \div 2$ _____ **5.** $122 \div 5$ _____ **6.** $165 \div 6$ _____

Lessons 4.8 - 4.9

Divide.

1. $4\overline{)848}$ **2.** $7\overline{)287}$ **3.** $5\overline{)405}$ **4.** $3\overline{)696}$

5. $96 \div 6$ _____ **6.** $76 \div 5$ _____ **7.** $58 \div 4$ _____ **8.** $85 \div 2$ _____

Lessons 4.10 - 4.11

Divide and check.

1. $4\overline{)896}$ **2.** $5\overline{)833}$ **3.** $6\overline{)527}$

4. $3\overline{)935}$ **5.** $8\overline{)1{,}976}$ **6.** $6\overline{)1{,}042}$

Lesson 4.12

Solve. Draw a diagram to help you.

1. Ellis has 2 dozen white baseballs and 4 dozen yellow baseballs. He needs to divide them into cartons that hold 6 each. How many cartons can he fill?

_____

2. A family of 2 adults and 3 children went out to dinner. The total bill was $42. Each child's dinner cost $4. How much did each adult's dinner cost?

_____