

EES

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Digetente betegic Intervention

EACH CHAPTER INCLUDES:

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- Prescriptive targeted strategic intervention charts.
- Student activity pages aligned to the Common Core State Standards.
- Complete lesson plan pages with lesson objectives, getting started activities, teaching suggestions, and questions to check student understanding.

Grade 4

Targeted Strategic Intervention

Grade 4, Chapter 6

Based on student performance on Am I Ready?, Check My Progress, and Review, use these charts to select the strategic intervention lessons found in this packet to provide remediation.

Am I Ready?					
lf Students miss Exercises	Then use this Strategic Intervention Activity	Concept	CESS	Where is this concept in <i>My Math?</i>	
1-7	6-A: Subtraction with Regrouping	Subtraction	4.NBT.4	Chapter 2, Lesson 6	
8-14	6-B: Use Arrays to Divide	Division	4.NBT.6	Grade 3, Chapters 6, 7, and 8	

Check My Progress 1						
lf Students miss Exercises	Then use this Strategic Intervention Activity	Concept	EESS	Where is this concept in <i>My Math?</i>		
3-4	6-C: Division Facts	Divide multiples of 10, 100, and 1,000	4.NBT.1, 4.NBT.6	Chapter 6, Lesson 1		
5-7	6-D: Mental Math: Multiplication and Division	Estimate the unknown	4.NBT.3, 4.NBT.6	Chapter 6, Lesson 2		
P8-10	6-E: Practice Strategies to Divide 6-F: Relate Division and Multiplication	Divide, using multiplication to check	4.NBT.6	Chapter 6, Lesson 5		

Check My Progress 2				
lf Students miss Exercises	Then use this Strategic Intervention Activity	Concept	CESS	Where is this concept in <i>My Math?</i>
2-3	6-G: Round to the Nearest Whole Number 6-H: Division without Remainders	Divide, using estimation to check	4.NBT.6	Chapter 6, Lesson 7
4-9	6-I: Division with Remainders 6-J: Multiplying Greater Numbers	Divide, using multiplication to check	4.NBT.6	Chapter 6, Lesson 9

Review					
lf Students miss Exercises	Then use this Strategic Intervention Activity	Concept	(CESS)	Where is this concept in <i>My Math?</i>	
6-8	6-K: Multiply and Divide by Multiples of 10 and 100	Division	4.NBT.1, 4.NBT.6	Chapter 6, Lesson 1	
9-11	6-L: Use Place Value to Round to the Nearest Ten, Hundred, and Thousand	Estimation	4.NBT.3, 4.NBT.6	Chapter 6, Lesson 2	
12-13	6-M: Practice Division without Regrouping	Distributive Property/partial quotients	4.NBT.6	Chapter 6, Lessons 8	
14-19	6-N: Divide by One-Digit Numbers	Division with and without remainders	4.NBT.6	Chapter 6, Lessons 5, 7, 9, and 10	

Subtraction with Regrouping



Learn



Use mental math or subtract with regrouping.

Find 12 – 3.

Use mental math for subtraction facts

through 20.

$$13 - 3 = 10 - 1$$
 less than 10 is 9.
So, $12 - 3 = 9$.



 Try It

 1. 9 - 3 = 2. 12 - 4 = 3. 18 - 9 =

 4. 17 - 9 = 5. 15 - 7 = 6. 13 - 8 =

 Regroup to subtract.

 7. 24 8. 32 9. 35 10. 46

 - 9

 - 9

Power Prac	ctice Subt	ract.	Lesson 6-A
11. 8 2	12. 24 <u>- 4</u>	13. 20 <u>- 5</u>	14. 27 <u>- 9</u>
15. 56 <u>- 7</u>	16. 16 <u>- 8</u>	17. 36 <u>- 9</u>	18. 54 <u>- 6</u>
19. 14 — 7 =	 20. 42 —	6 =	Learn with Partners & Parents
21. 81 – 9 =	_ 22. 53 —	8 =	Odd Subtraction You will need two number cubes and a spinner numbered 0–9. Two or more players can play.
23. 75 - 7 =	_ 24. 61 -	9 =	 Players take turns. First toss the number cubes. Use numbers to make a two-digit number. The digits may be in any
27. 57 – 9 =	_ 28. 34 –	5 =	order. • Next spin the spinner. Subtract the number on the spinner from the number made with the number cubes.
29. 22 — 7 =	_ 30. 91 –	6 =	 If the difference is correct and an even number, the player gets 1 point. If the difference is correct and an odd
31. 44 – 5 =	_ 32. 60 -	2 =	number, the player gets 2 points. The first player to get 25 points wins.

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USING LESSON 6-A

Lesson Goal

• Use mental math or subtract with regrouping to find the difference between a one- and a two-digit number.

What the Student Needs to Know

- Recall basic subtraction facts.
- Use subtraction fact patterns.
- Understand how to regroup.

Getting Started

Find out what students know about using mental math. Say:

- In subtracting one number from another, you often find that the number you are subtracting in the ones column is larger than the number you are subtracting from, for example, 11 – 4.
- If you don't remember the subtraction fact, you can find the difference between the numbers using mental math.
- For example, if you don't remember 11 - 4, what subtraction fact might you think of? (possible answer: 14 - 4 = 10)
- Since 11 is 3 less than 14, the answer will be 3 less than what? (10) What is 11 4? (7)

What Can I Do?

Read the question and the response. Then discuss the first example. Ask:

 If you can't remember 12 - 3, what can you do? (Subtract 13 - 3 and then subtract 1 from the answer.)

Read the second example. Ask:

• How would you regroup to solve this problem? (Think: 7 ones is more than 2 ones, so you have to exchange 1 ten for 10 ones.)

Learn		
What Can I Do?	Use mental math or subtra	act with regroup
I want to subtract a) Find 12 – 3.	
1-digit number from a 2-digit number.	Use mental math for subtra through 20.	ction facts
	13 - 3 = 10 - 21 less than	10 is 9.)
	So, 12 – 3 = 9.	
	Find 42 – 7.	Subtract the te
	Think: 7 ones > 2 ones, so regroup 1 ten for 10 ones.	3 ¹² 42 -7
	Regroup to subtract the ones.	3 5 So, 42 - 7 = 3
	$\begin{array}{c}3 12 \\ 4 \text{ tens 2 ones} = \\ -7 \\ 5\end{array}$	
Try It Subtract	. Use mental math.	
1. 9 – 3 = <u>6</u>	2. 12 - 4 = <u>8</u>	3. 18 − 9 = 9
4. 17 – 9 = <u>8</u>	5. 15 – 7 = 8	5. 13 – 8 = 5
Regroup to subtract		
7. 24 8.	32 9. 35	10. 46
$\frac{-6}{10}$	$\frac{-4}{-7}$	<u> </u>

WHAT IF THE STUDENT NEEDS HELP TO

Recall Basic Subtraction Facts

 Practice basic subtraction facts through 20 for 10 to 15 minutes daily until the student can recall the differences for the subtraction facts automatically.

Use Subtraction Fact Patterns

• Review how to use mental math. Help the student develop proficiency by using subtraction fact patterns, for example: 14 - 6 = 8 so 24 - 6 = 18, 34 - 6 = 28, and so on.

Power Pra	ctice Subtra	ict.	Lesson 6-A
11. 8 <u>-2</u> 6	12. 24 <u>- 4</u> 20	13. 20 <u>- 5</u> 15	14. 27 -9 18
15. 56 <u>- 7</u> 49	16. 16 <u>- 8</u> 8	17. 36 <u>- 9</u> 27	18. 54 <u>- 6</u> 48
19. 14 – 7 = 7	20. 42 – 6	5 = <u>36</u>	Learn with Partners & Parents
21. 81 – 9 = <u>72</u>	22. 53 – 8	B = _45	You will need two number cubes and a spinner numbered 0–9. Two or more players can play.
23. 75 – 7 = <u>68</u>	_ 24. 61 – 9	9 = <u>52</u>	Players take turns. First toss the number cubes. Use numbers to make a two-digit number. The digits may be in any
25. 14 - 6 = <u>8</u> 27. 57 - 9 = <u>48</u>	_ 26. 40 - 9	9 = <u>31</u> 5 = <u>29</u>	 order. Next spin the spinner. Subtract the number on the spinner from the number made with the number cubes.
29. 22 – 7 = <u>15</u>	_ 30. 91 – 6	5 = <u>85</u>	If the difference is correct and an even number, the player gets 1 point. If the difference
31. 44 – 5 = <u>39</u>	32. 60 – 2	2 = _58 _	number, the player gets 2 points. The first player to get 25 points wins.

WHAT IF THE STUDENT NEEDS HELP TO

Understand How to Regroup

 Use cubes or counters to physically represent the tens and the ones. Show the conversion of 1 ten to 10 ones and back again.

Complete the Power Practice

• Discuss each incorrect answer. Have the student model any fact he or she missed, using cubes or counters along with written numbers.

- If I add the 10 ones to the number already in the ones column, how many will I have? (12)
- If I subtract 7 from 12, how much will be left? (5)
- Now what do I have to do? (Subtract the tens.)
- How many tens are left after the regrouping? (3)
- What is 42 7? (35)

Try It

Have students read each subtraction number sentence aloud and tell how they can use mental math or regrouping to subtract.

Power Practice

Have students complete the practice items. Then review each answer.

Learn with Partners & Parents

You may wish to review these rules with students:

even number – even number = ? (even number)

even number – odd number = ? (odd number)

odd number — odd number = ? (even number)

odd number - even number = ? (odd number)

Familiarity with these rules will allow each player to predict the subtraction result as odd or even. The following variation will introduce an element of strategy to the game. Each player first spins the spinner to find the number that will be subtracted. Then each player rolls the number cubes and forms the two-digit number.

Name _ **Use Arrays to Divide** Lesson 6-B Write a division sentence for each array. 1. 2. 16 8 • 4 <u>.</u> 4 = = 3. <u>21</u> ÷ 3 = 4. APPLE APPLE APPLE APPLE APPLE APPLE APPLE APPLE Apple Juice APPLE JUICE APPLE JUICE APPLE APPLE JUICE APPLE JUICE APPLE JUICE APPLE 18 ÷ 2 =

5. Draw an array that shows $9 \div 3 = 3$.

USING LESSON 6-B

Lesson Goal

• Model division with arrays.

What the Student Needs to Know

• Draw and model an array.

Getting Started

- Draw a picture of a batch of cookies on a tray in rows and columns.
- Identify the rows and the columns. Explain to students when there is an equal number in each column and row, it is called an array.
- Ask students where they have seen this kind of formation before. (Ex: participants in a parade, cookies in a box, eggs in a carton, trees in an orchard, etc.)

Teach

Read and discuss Exercise 1 at the top of the page. Ask:

- How many paintbrushes are in the array? (16) This is the first number in the division number sentence.
- How many rows are in the array? (4) This is the second number in the division number sentence.
- How many paintbrushes are in each row? (4) This will be the answer or quotient in the division number sentence.
- What is the division number sentence? (16 ÷ 4 = 4)

Practice

- Read the directions as students complete Exercises 2 through 5.
- Check student work.
- If students have difficulty with the activity, work with them to use connecting cubes to form arrays. Encourage students to practice skip counting each row of counters to find the total amount of rows and the total in each row.



WHAT IF THE STUDENT NEEDS HELP TO

Draw and Model an Array

- Use connecting cubes to help the student understand the term *array*.
- Give the student 16 connecting cubes.
- Ask the student to use all 16 cubes to create several rectangular arrays. Explain and demonstrate the five different possibilities: 1 × 16, 16 × 1, 2 × 8, 8 × 2, 4 × 4
- Explain how many cubes to place in each row and column.
- Explain that the arrangement is called an array.
- Have the student continue to explore arrays using different numbers of connecting cubes.

Division Facts



Learn



Use the table to find the quotient.

X	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

Try It Use the table to complete each fact. **1.** $20 \div 5 =$ ____ **2.** $32 \div 4 =$ ____ **3.** $40 \div 8 =$ ____ **4.** $48 \div 6 =$ ____ Power Practice Divide. **5.** 4)28 **6.** 6)18 **7.** 8)64 **8.** 9)45 **9.** 8)72 **10.** $6\overline{)36}$ **11.** $9\overline{)63}$ **12.** $7\overline{)49}$ **13.** $8\overline{)48}$ **14.** 5)40 **15.** 3)27 **16.** 7)56 **17.** 9)81 **18.** 6)42 **19.** 6)30

USING LESSON 6-C

Lesson Goal

Complete division facts.

What the Student Needs to Know

- Use counters to show the meaning of division.
- Read a multiplication table.
- Use a multiplication fact to write two related division facts.

Getting Started

- Write 32 ÷ 4 on the board. Ask: What does this mean? (Divide 32 by 4; divide 32 into 4 equal groups; divide 32 into groups of 4) What is another way to write this division problem? (4)32)
- Explain your thinking when you do a problem such as 32 ÷ 4. (Possible strategies: How many times does 4 go into 32? What number times 4 equals 32? How many times can I subtract 4 from 32?)

What Can I Do?

Read the question and the response.

- If you have not yet memorized the division facts, what can you do? (Practice using flash cards. Some students may suggest computer software.)
- Why can you use multiplication to help you do division? (Multiplication and division are opposite or inverse operations. One operation "un-does" the other.)

Try It

• How can you use the table for Exercise 1? (Find the row with 5 at the left. Go across this row until you get to 20. Look at the top of this column to find the quotient, 4.)

Power Practice

 Have the students complete the practice items. Then review each answer.

Division	Facts			Less 6-
	- Use	a multiplicati	on table.	
What Can I I	Do? Use	the table to fin	nd the quotient.	
I want to pract	te	X a c a		
			3 4 5 6 7	8 9 10
			3 4 5 6 7	8 9 10
		$2 0 2 \mu$	5 4 5 0 7 6 8 10 12 11	16 18 20
		2 0 2 7	9 12 15 18 21	24 27 30
			12 16 20 24 28	32 36 LLO
		5 0 5 10 1	15 20 25 30 35	40 45 50
		6 0 6 12 1	18 24 30 36 42	48 54 60
		7 0 7 14	21 28 35 42 49	56 63 70
		8 0 8 16 2	24 32 40 48 56	64 72 80
		9 0 9 18 2	27 36 45 54 63	72 81 90
		10 0 10 20 3	30 40 50 60 70	80 90 100
1. 20 ÷ 5 =	4 2. 32 ÷	4 = <u>8</u> 3. 4	40 ÷ 8 = 5	4. 48 ÷ 6 =
Power I	Practice	Divide.		
7 5. 4)28	3 6. 6)18	7. 8)64	5 8. 9)45	9. 8)
6	7	7	6	
10. 6)36	11. 9)63	12. 7)49	13. 8)48	14. 5
9 15. 3)27	8 16. 7)56	9 17. 9)81	7 18. 6)42	19. 6

WHAT IF THE STUDENT NEEDS HELP TO

Use Counters to Show the Meaning of Division

 Provide pairs of students with 50 counters. One student takes a handful of counters; the partner divides them into 2 equal groups. Students record their work using the ÷ symbol. Repeat using divisors of 3 and 4.

Read a Multiplication Table

 Provide multiplication tables. Have the student shade a partial row and column for a fact such as 4 × 3. The student shades the 4-row across to the 12; shades the 3-column down to the 12. Repeat with other facts.

Use a Multiplication Fact to Write Two Related Division Facts

• Write 5×6 on the board. Have the student draw a model for the fact. Use the model to write and explain two division facts: $30 \div 5 = 6, 30 \div 6 = 5.$

Complete the Power Practice

 Have students work in pairs using division flash cards to identify which facts they still need to memorize.

Mental Math: Multiplication and Division



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Use basic facts and mental math to complete multiplication and division number sentences.

2 × <u>?</u> = 40	Think: What number will make the number sentence true?
2 × 20 = 40	

36 ÷ <u>?</u> = 12	Think: What number will make
	the number sentence true?
36 ÷ 3 = 12	

Try It Use mental math to find the number that makes the number sentence true.

1. 7 × <u>?</u> = 28	Think: $7 \times 4 = 28$ So, the number that makes the statement true is
2. 12 × <u>?</u> = 72	Think: $12 \times 6 = 72$ So, the number that makes the statement true is
3. 2 × <u>?</u> = 48	Think: $2 \times 24 = 48$ So, the number that makes the statement true is
4. 10 × <u>?</u> = 110	Think: $10 \times 11 = 110$ So, the number that makes the statement true is
5. 81 ÷ <u>?</u> = 9	Think: 81 \div 9 = 9 So, the number that makes the statement true is
6. 60 ÷ <u>?</u> = 6	Think: $60 \div 10 = 6$

Name _

Power Practice Write the number that makes each statement true.



 7. $8 \times \underline{?} = 72$ 8. $56 \div \underline{?} = 7$

 9. $27 \div \underline{?} = 3$ 10. $4 \times \underline{?} = 16$

 11. $36 \div \underline{?} = 6$ 12. $42 \div \underline{?} = 6$

 13. $9 \times \underline{?} = 45$ 14. $14 \div \underline{?} = 2$

 15. $12 \times \underline{?} = 48$ 16. $28 \div \underline{?} = 7$

 17. $8 \times \underline{?} = 32$ 18. $54 \div \underline{?} = 9$

Learn with Partners & Parents

What's My Number?

- Each player gives a clue about a number. For example, "When you multiply my number by 3, the product is 45. What's my number?"
- Use both products and quotients in the game.
- Each time a player guesses the correct number, the player scores a point.
- Play until one player reaches 15 points.

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17. 8 × <u>?</u> = 32	
19. 44 ÷ <u>?</u> = 11	
20. 15 × <u>?</u> = 30	
21. 5 × <u>?</u> = 40	
22. 7 × <u>?</u> = 77	
23. 48 ÷ <u>?</u> = 6	
24. 4 × <u>?</u> = 36	
25. 25 ÷ <u>?</u> = 5	
26. 12 × <u>?</u> = 60	
27. 3 × <u>?</u> = 27	
28. 88 ÷ <u>?</u> = 8	
29. 4 × <u>?</u> = 12	
30. 9 × <u>?</u> = 63	

USING LESSON 6-D

Lesson Goal

• Use mental math to complete multiplication and division sentences.

What the Student Needs to Know

- Recall basic multiplication and division facts.
- Use basic facts to complete number sentences.

Getting Started

- Review some basic multiplication and division facts with students. For example, ask:
- What is 6 × 7? (42) 6 × 5? (30)
- What is 36 ÷ 9? (4) 35 ÷ 5? (7)
- Then have students complete number sentences such as the following:

 $12 \times 2 = ? (24), 9 \times 9 = ? (81),$ $48 \div 8 = ? (6), and$ $27 \div 3 = ? (9)$

What Can I Do?

Read the question and the response. Then read and discuss the examples. Ask:

- How can you decide what number makes each number sentence true? (Possible answer: Use basic facts to decide which number will make the number sentence true, then substitute that number into the number sentence to check that it works.)
- How are you using mental math to find the missing numbers? (Possible answer: The missing numbers in the product and the quotient involve basic facts and multiples of ten so, the missing numbers are fairly easy to compute without paper and pencil.)
- Can there be more than one whole number solution for each number sentence? Explain. (No, only one whole number will make each number sentence true.)

Multiplica	ath: ntion a	nd Divis	ion
What Can I D	0?	Use basic fact multiplication	ts and mental math to complete n and division number sentences
I want to use mer math to complet number sentenc	ntal e a ce.	2 × <u>?</u> = 40	Think: What number will make the number sentence true?
		2 × 20 = 40	
		36 ÷ <u>?</u> = 12	Think: What number will make the number sentence true?
		36 ÷ 3 = 12	
mal	kes the nu	nath to find th umber sentend	e number that :e true.
mal 1. 7 × <u>?</u> = 28	kes the nu Think: 7 : So, the n	with to find the sentence of t	e number that te true. skes the statement true is4
mal 1. $7 \times \underline{?} = 28$ 2. $12 \times \underline{?} = 72$	Think: 7 So, the n Think: 12 So, the n	hath to find th imber sentence $\times 4 = 28$ umber that ma $2 \times 6 = 72$ umber that ma	e number that the true. Thes the statement true is <u>4</u> takes the statement true is <u>6</u>
mal 1. $7 \times \underline{?} = 28$ 2. $12 \times \underline{?} = 72$ 3. $2 \times \underline{?} = 48$	kes the nu Think: 7 So, the n Think: 12 So, the n Think: 2 So, the n	hath to find th imber sentence $\times 4 = 28$ umber that ma $2 \times 6 = 72$ umber that ma $\times 24 = 48$ umber that ma	e number that te true. Takes the statement true is <u>4</u> takes the statement true is <u>6</u> takes the statement true is <u>24</u>
mal 1. $7 \times \underline{?} = 28$ 2. $12 \times \underline{?} = 72$ 3. $2 \times \underline{?} = 48$ 4. $10 \times \underline{?} = 110$	kes the nu Think: 7 : So, the n Think: 12 So, the n Think: 2 : So, the n Think: 10 So, the n	where the final the final the final the final the final term of	e number that the true. Takes the statement true is <u>4</u> takes the statement true is <u>24</u> takes the statement true is <u>11</u>
mail 1. $7 \times \underline{?} = 28$ 2. $12 \times \underline{?} = 72$ 3. $2 \times \underline{?} = 48$ 4. $10 \times \underline{?} = 110$ 5. $81 \div \underline{?} = 9$	kes the nu Think: 7 : So, the n Think: 12 So, the n Think: 2 : So, the n Think: 10 So, the n Think: 81 So, the n	hath to find the sumber sentence x 4 = 28 umber that made x 6 = 72 umber that made x 24 = 48 umber that made $0 \times 11 = 110$ umber that made $\div 9 = 9$ umber that made $0 \times 9 = 9$	e number that the true. The statement true is <u>4</u> the statement true is <u>6</u> the statement true is <u>24</u> the statement true is <u>11</u> the statement true is <u>9</u>

WHAT IF THE STUDENT NEEDS HELP TO

Recall Basic Multiplication and Division Facts

 Practice mutiplcation and division facts 10 to 15 minutes daily until the student can recall the products for multiplication facts and the quotients for division facts automatically.

Use Basic Facts To Complete Number Sentences

 Remind the student of the inverse relationship between multiplication and division.
 Have the student compare the dividend, divisor, and quotient of a division number sentence to the product and factors of a multiplication number sentence.

Power Pra	ctice Write each	e the number that makes statement true.
7. 8 × <u>?</u> = 72	_9	8. 56 ÷ <u>?</u> = 7 <u>8</u>
9. 27 ÷ <u>?</u> = 3	9	10. 4 × <u>?</u> = 16
11. 36 ÷ <u>?</u> = 6	6	12. $42 \div \underline{?} = 6$ 7
13. 9 × <u>?</u> = 45		14. 14 ÷ <u>?</u> = 2
15. 12 × <u>?</u> = 48	_4	16. 28 ÷ <u>?</u> = 7 <u>4</u>
17. 8 × <u>?</u> = 32	_4	18. 54 ÷ <u>?</u> = 96
19. 44 ÷ <u>?</u> = 11	_4	
20. 15 × <u>?</u> = 30	_2	Learn with
21. 5 × <u>?</u> = 40	8	Partners & Parents
22. 7 × <u>?</u> = 77		• Each player gives a clue
23. 48 ÷ <u>?</u> = 6	8	about a number. For example, "When you
24. 4 × <u>?</u> = 36	_9	3, the product is 45. What's my number?"
25. 25 ÷ <u>?</u> = 5	_5	Use both products and quotients in the game.
26. 12 × <u>?</u> = 60		Each time a player guesses the correct
27. 3 × <u>?</u> = 27	9	number, the player scores a point.
28. 88 ÷ <u>?</u> = 8		Play until one player reaches 15 points.
29. 4 × <u>?</u> = 12		
20 $0 \times 2 = 62$	7	

WHAT IF THE STUDENT NEEDS HELP TO

Complete the Power Practice

• Discuss each incorrect answer. Have the student check the solution in the original number sentence to verify that it really is the solution. If necessary, have the student review basic facts that apply to any incorrect exercises. Are there any other ways that you can think of to use mental math to find the product or the quotient? (Answers may vary. Possible answer: Yes, use inverse operations. In the first example, think 40 ÷ 2 = 20, so the number that will make the number sentence true is 20. In the second example, think 12 × what number = 36. The number that will make the number sentence true is 3 because 12 × 3 = 36.)

Try It

• Have students explain how they recognized the number that makes each number sentence true. Then have them tell how they can check their answer.

Power Practice

- Have students complete the practice items. Then review each answer.
- Encourage students to explain how they decided which number makes each number sentence true. For example, did they use basic facts and multiplication to complete the multiplication exercises or did they sometimes use basic division facts? Did they use basic facts and division to complete the division exercises or did they sometimes use basic multiplication facts?

Learn with Partners & Parents

- Before students play the game, have them make a list of facts that they want to use in the game. Be sure there are both multiplication and division facts.
- As students get more practice with the game, suggest that they introduce a time limit in which to respond.

Practice Strategies to Divide





Use repeated subtraction.

7)28

Subtract the divisor from the dividend. Stop at 0.

28 - 7 = 2121 - 7 = 1414 - 7 = 77 - 7 = 0 Count the number of times you subtracted.

28 - 7 = 21	1
21 - 7 = 14	2
14 - 7 = 7	3
7 - 7 = 0	4

You subtracted 4 times.

Name			
	se models. Find e	ach quotient.	Lesson 6-E
1. 7)21	2. 6)12	3. 3)15	4. 5)25
5. 63 ÷ 9 = _		6. 42 ÷ 6 =	
Use repeated	subtraction. Find	each quotient.	
7. 2)6	8. 4)16	9. 7)35	10. 8)48
11. 6 ÷ 1 =		12. 32 ÷ 8 =	
Power P	ractice Find	each quotient.	
13. 3)24	14. 5)45	15. 2)16	16. 5)30
17. 7)56	18. 9)81	19. 3)21	20. 9)36
21. 54 ÷ 9 =		22. 48 ÷ 6 = .	
23. 28 ÷ 4 =		24. 72 ÷ 8 = _	

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USING LESSON 6-E

Lesson Goal

• Find quotients of basic division facts.

What the Student Needs to Know

- Subtract 1-digit numbers from 1- or 2-digit numbers.
- Recognize division as repeated subtraction.
- Recognize place value.

Getting Started

Review the meaning of division with students. Provide counters. Say:

- I have 12 eggs. I want to put them in 3 baskets, and I want each basket to have the same number of eggs. Use these 12 counters to show me how many eggs I should put in each basket.
- Help students make 3 equal groups of the counters. Then repeat the activity using different division facts and having students work independently.
- Remind students that division is a way to make equal groups.

What Can I Do?

Read the question and the response. Then read and discuss the examples. Write $28 \div 7 = 4$ on the board. Ask:

- Which number is the divisor in this problem? Which number is the dividend? the quotient? (The divisor is 7, the dividend is 28, and the quotient is 4.)
- When you make an array to solve the problem, how many counters should you use? (The dividend (28) tells you the number of counters to use.)
- How do you know how many counters to put in each row? (The divisor (7) tells you the amount of equal rows.)
- How does the array give you the quotient? (You have to count the number of counters in each row. There are 4 counters in each row.)



WHAT IF THE STUDENT NEEDS HELP TO

Subtract 1-Digit Numbers from 1- or 2-Digit Numbers

- Practice subtraction facts for a few minutes each day until the student can recall the differences by rote.
- Once the student has mastered subtraction facts, introduce subtracting a 1-digit number from a 2-digit number. Work first without regrouping, then progress to exercises where the student must regroup 1 ten as 10 ones. The use of related facts and subtraction patterns, such as 16 – 9 = 7 and 36 – 9 = 27, may help the student gain proficiency.

Recognize Division as Repeated Subtraction

- Have the student use counters or draw pictures to make an array for $35 \div 7$. Have him or her first count the number of rows to find the divisor.
- Next, have the student count the total number of counters. Then have the student take away one row at a time, counting the total remaining counters after each subtraction.
- Have the student compare the number of counters in each row and the number of times she or he subtracted.



WHAT IF THE STUDENT NEEDS HELP TO

Recognize Place Value

- Review place value to millions with the student. Have the student write a number that has a 4 in the thousands place, another number with an 8 in the hundred-thousands place, and so on.
- Have the student identify the place value of the digit in the divisor and the digits in the dividend with examples within the worksheet. Then ask: *What is the place value of the digit in the quotient?* (ones) Help the student understand that this digit should be written over the ones place of the dividend.

Complete the Power Practice

- Discuss each incorrect or incomplete answer with the student. Ask the student to describe the method used to find the answer.
- Have the student use an alternative method to work through the problem again and find the correct answer.

- Look at the second example to use repeated subtraction. How do you know what number to subtract and what number to start with? (Start with the dividend, then subtract the divisor as many times as necessary until you reach 0.)
- How does repeated subtraction give you the quotient? (You have to count the number of times you subtracted. That number is the quotient.)

Try It

Have students tell the dividend and divisor in Exercises 1–12. Then have students tell the total number of counters in Exercises 1–4.

- As an alternative method, some students may recognize that multiplication facts can help them find the quotients. Ask:
- In Exercise 1, what multiplication fact do you know that has one factor of 7 and a product of 21? (3 × 7 = 21 or 7 × 3 = 21)
- Draw the array for Exercise 1. How many rows of 3? (7) What is the quotient? (3)
- Repeat this activity for the next few exercises, then have students complete the exercises.

Power Practice

- Have students complete the practice items, then review each answer.
- Select several of the exercises and have students explain which method they used.
- Discuss how multiplication can be used to check the answers. Students should understand that the quotient multiplied by the divisor should have a product equal to the dividend. If this check produces a different quotient, students should work through the problem again, perhaps using an alternative method.

Name _____

Relate Division and Multiplication

Lesson 6-F

Write related division and multiplication sentences.



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USING LESSON 6-F

Lesson Goal

• Relate division and multiplication.

What the Student Needs to Know

- Use equal groups to multiply.
- Use equal groups to divide.

Getting Started

- Write hot/cold, large/small, inside/ outside on the board.
- These pairs of words are opposites. What are some other pairs of opposites? (Student answers will vary; up/down, no/yes, etc.)
- In math, multiplication and division are opposite operations. Explain that multiplication can undo division and vice versa.
- Show the opposite operations in fact families.
- Write an example of a fact family on the board.

Teach

Read and discuss Exercise 1 at the top of the page. Ask:

- What numbers are within the triangle? (12, 2 and 6)
- We can use this information to form related multiplication and division number sentences.
- Where will the largest number be placed within a division number sentence? (as the first number or the dividend)
- What number will go first? (12)
- Does it matter where the 2 and 6 go? (No, because 12 ÷ 6 = 2 and 12 ÷ 2 = 6 are related.)
- Where will the largest number be placed within a multiplication number sentence? (as the last number or the product)
- What number will go last? (12)
- Does it matter where the 2 and 6 go? (No, because $2 \times 6 = 12$ and $6 \times 2 = 12$ are related.)

Practice

• Have students complete Exercises 2 through 6. Check student work.



WHAT IF THE STUDENT NEEDS HELP TO

Use Equal Groups to Multiply

- Work with the student to use counters to model equal groups.
- Have the student create six groups with two counters in each group.
- Write a multiplication sentence by representing the number of groups as the first number, the number in each group as the second number, and the total number of counters as the third number.

 $6 \times 2 = 12$

Number Number in Total or of groups each group product

• To find the total amount of counters, the student can count by 1s. Work up to skip counting by 2s to add the groups.

Use Equal Groups to Divide

- Work with the student to use counters to model equal groups.
- Have the student create two groups with five counters in each group.
- Write a division sentence by representing the total counters as the first number, the amount of groups as the second number, and the amount within each group as the third number.

$$0 \div 2 = 5$$

1

Number of Number Number in counters of groups each group

• To find the total amount of counters, the student can count by 1s. Work up to skip counting by 2s to add the groups.

Round to the Nearest Whole Number





Round to the given place value.

To round to the nearest **ten**, use the *ones* digit.

5**6** rounds to 60.

2**2** rounds to 20.

Try It Circle the numbers.

1. Circle the numbers that round to 40.

42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58

2. Circle the numbers that round to 50.

43 44 45 46 47 48 49 50 51 52 53 54 55 56

Round each number to the nearest *ten*.

3. 86	4. 26	5. 44	6. 67
7. 72	8. 61	9. 94	10. 45
11. 31	12. 23	13. 49	14. 58
15. 56	16. 28	17. 74	18. 57
19. 12	20. 83	21. 95	22. 78

USING LESSON 6-G

Lesson Goal

• Round numbers to the nearest ten.

What the Student Needs to Know

• Count by tens.

Getting Started

Find out what students know about tens. Have them count by 10s to 100. Ask:

- When you count by 10s, what happens to the first (left) digit of the numbers as you count? (It increases by one.)
- What happens to the other digits in the numbers? (They remain zero.)

What Can I Do?

Read the question and the response. Then read and discuss the examples. Ask:

- What does it mean to say that 56 rounds to 60? (56 is closer to 60 than 50)
- What does it mean to say that 22 rounds to 20? (22 is closer to 20 than 30)

Try it

- Will the numbers 0, 1, 2, 3, and 4 round a number up or down? (down)
- What numbers will round a number up? (5, 6, 7, 8, 9)
- In Exercise 1, what numbers will round to 40? (42, 43, 44)
- Have students complete Exercise 2 through 18. Check their work.

Round to Whole Nu	the Nearest Imber	:	Less 6-
What Can I I want to roo to the nearest	Round t Do? Ind ten. 56 round	o the given place v d to the nearest ten, <i>ones</i> digit. ds to 60. 2 2 ro	alue. unds to 20.
Try It Circ	le the numbers.		
1. Circle the nu	umbers that round t	o 40.	
(42 43 44)4	5 46 47 48 49 50	51 52 53 54 55 56	57 58
2. Circle the nu	umbers that round t	o 50.	
43 44 45 4	5 47 48 49 50 51	52 53 54 55 56	
43 44 (45 44 Round each nu	5 47 48 49 50 51 mber to the neares	52 53 54 55 56	
43 44 45 4 Round each nu 3. 86 _90_	6 47 48 49 50 51 mber to the neares 4. 26 <u>30</u>	52 53 54)55 56 t ten. 5. 44 <u>40</u>	6. 67
43 44 (45 4) Round each nu 3. 86 _90_ 7. 72 _70_	6 47 48 49 50 51 mber to the nearest 4. 26 <u>30</u> 8. 61 <u>60</u>	52 53 54)55 56 a ten. 5. 44 <u>40</u> 9. 94 <u>90</u>	6. 67 10. 45
43 44 (45 44 Round each nu 3. 86 90 7. 72 70 11. 31 30	 6 47 48 49 50 51 mber to the nearest 4. 26 <u>30</u> 8. 61 <u>60</u> 12. 23 <u>20</u> 	52 53 54)55 56 t ten. 5. 44 <u>40</u> 9. 94 <u>90</u> 13. 49 <u>50</u>	6. 67 10. 45 14. 58
43 44 (45 44 Round each nu 3. 86 90 7. 72 70 11. 31 30 15. 56 60	6 47 48 49 50 51 mber to the nearest 4. 26 _30 4. 26 _30 8. 61 _60 12. 23 _20 16. 28 _30	52 53 54) 55 56 a ten. 5. 44 <u>40</u> 9. 94 <u>90</u> 13. 49 <u>50</u> 17. 74 <u>70</u>	6. 67 10. 45 14. 58 18. 57

WHAT IF THE STUDENT NEEDS HELP TO

Count by Tens

- Have the student use base-ten blocks to illustrate the numbers that result when you count by ten. Then have the student write down the sequence of numbers.
- Have the student practice counting by 10s to 100 until it can be done with ease.

Name _

Division without Remainders



Show your work to solve the division number sentence.

1. $36 \div 3$	2. $64 \div 2$	3. 85 ÷ 5
$3 \frac{12}{36}$	$2)\frac{32}{64}$	5)85
4. $48 \div 4$	5. 72 ÷ 6	6. 91 ÷ 7
$4)\frac{12}{48}$	$6\frac{12}{72}$	7) <u>91</u>
7. 57 ÷ 3	8. 66 ÷ 3	9. 96 ÷ 4
$\frac{19}{357}$	$3\frac{22}{66}$	4 <u>)</u> 96
10. 96 ÷ 6	11. $84 \div 4$	12. 98 ÷ 2
$6\frac{16}{96}$	$4\frac{21}{84}$	2)98
13. 90 ÷ 5	14. 84 ÷ 6	15. 84 ÷ 7
$5\frac{18}{90}$	6)84	7 <u>)84</u>

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USING LESSON 6-H

Lesson Goal

• Divide by a one-digit number.

What the Student Needs to Know

• Relate multiplication to division.

Getting Started

- Write the following number sentence on the board: $54 \div 6 = 9$
- Have students copy the problem on a sheet of paper.
- Give them the following instructions: *circle the dividend (54) in red, the divisor (6) in blue, and the quotient (9) in yellow.*
- Allow student volunteers to complete each step on the board.
- Discuss the results as a class.

Teach

- Take a look at the equation in Exercise 1: 36 ÷ 3.
- Using the number sentence, what is the dividend? (the largest number, 36)
- What is the divisor? (the number by which the dividend is being divided, 3)
- Review the steps to solve the division number sentence with students. Remind students to divide, multiply, and subtract.

Practice

- Read the directions as students complete Exercises 2 through 15.
- Check student work.
- If students have difficulty with the activity, work with them to use base-ten blocks to model division number sentences with arrays.

Division without Remainders Lesson 6-H Show your work to solve the division number sentence. **1.** 36 ÷ 3 **2.** 64 ÷ 2 **3.** 85 ÷ 5 3)<u>36</u> <u>32</u> 2)64 5 85 -5 -3 -6 6 4 35 -35 -6 -4 0 0 0 **4.** 48 ÷ 4 **5.** 72 ÷ 6 **6.** 91 ÷ 7 12 12 13 4)48 6)72 7)91 -7 -4 -6 21 8 12 -12 -21 -8 0 0 0 **7.** 57 ÷ 3 **8.** 66 ÷ 3 **9.** 96 ÷ 4 3)57 3)<u>66</u> <u>24</u> 4)96 -3 -6 -8 27 6 16 _27 <u>-1</u>6 -6 0 0 0 **10.** 96 ÷ 6 **11.** 84 ÷ 4 **12.** 98 ÷ 2 21 49 16 6)96 4)84 2)98 -8 -6 -8 36 4 18 -18 - 36 - 4 0 0 0 The opyright © **13.** 90 ÷ 5 **14.** 84 ÷ 6 **15.** 84 ÷ 7 18 5)90 6)<u>84</u> 7)<u>84</u> -7 -5 -6 40 24 14 -40 -24 -140 0 0

WHAT IF THE STUDENT NEEDS HELP TO

Relate Multiplication to Division

- Discuss the similarities between arrays for multiplication and division facts.
- Point out that the same array can be used for related multiplication and division problems, such as $10 \div 2 = 5$ and $2 \times 5 = 10$.
- Draw two arrays without labels on the board.
- Ask the student to model the array using concrete materials such as counters, base-ten

blocks, geoboards, pattern blocks, or connecting cubes.

- Have the student write a division number sentence for each array. Encourage him or her to find the multiplication number sentence if necessary.
- Have the student find each quotient and write an explanation of how each array represents its division number sentence.

Name .



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1. 4)38	2. 5)47	3. 8)50	4. 6)28
<u>- 36</u>	<u>- 45</u>	<u>- 48</u>	<u>- 24</u>
5. 6)37	6. 8)61	7. 2)15	8. 7)43
<u>- 36</u>	<u>- 56</u>	<u>- 14</u>	<u>- 42</u>
9. 9)75	10. 5)22	11. 7)25	12. 3)17
<u>- 72</u>	- 20	<u>- 21</u>	<u>- 15</u>



USING LESSON 6-I

Lesson Goal

• Divide a two-digit number by a one-digit number when the quotient includes a remainder.

What the Student Needs to Know

- Recall basic division facts.
- Understand how multiplication and division are related.

Getting Started

• Find out what the students know about division. Write the following division sentences on the board:

 $8\div2\quad 9\div2\ 10\div2$

Ask:

- Which of these division sentences will give you a whole number as a quotient? (8 ÷ 2; 10 ÷ 2)
- Which of these division sentences will not give you a whole number as a quotient? (9 ÷ 2)
- What do you call the number that is left after the division? (the remainder)

What Can I Do?

Read the question and the response. Then read and discuss the example. Ask:

- How do you know that 7 is the quotient? (Because $7 \times 6 = 42$, which is less than 45, but $8 \times 6 = 48$, which is greater than 45.)
- Why do you have to make sure that the remainder is less than the divisor? (Because if the remainder is greater than the divisor, it means that the divisor can go into the number being divided at least one more time.)



WHAT IF THE STUDENT NEEDS HELP TO

Recall Basic Division Facts

- Use counters to demonstrate how one number may be divided into equal groups. For example, 14 may be divided into 2 groups of 7, and 20 may be divided into 2 groups of 10 or 4 groups of 5. Then have the student use counters to illustrate the division of other two-digit numbers.
- Have the student practice completing division number sentences with one-digit divisors until this can be done with ease.

Understand How Multiplication and Division Are Related

- Use counters to demonstrate how multiplication may be used to arrive at a certain product.
 For example, 6 groups of 7 will give you a product of 42. Then show how this operation may be turned around, so that 42 may be divided into 6 groups of 7.
- Have the student use counters to illustrate multiplication sentences and their division counterparts.



WHAT IF THE STUDENT NEEDS HELP TO

 Have the student practice turning multiplication sentences into division sentences, and division sentences into multiplication sentences, until the student can do so with ease.

Complete the Power Practice

 Discuss each incorrect answer. Have the student identity the quotient and the remainder. Then have the student check the correctness of the remainder by multiplying the divisor by the quotient and adding the remainder to it. The result should be the number being divided.

Try It

- Have the students look at Exercise 1. Ask:
- What should the number be in the quotient? (9)
- Why is it the quotient? (Because $9 \times 4 = 36$, which is less than 38, and $10 \times 4 = 40$, which is greater than 38)
- What is the remainder? (2)
- How can you check that this is the correct remainder? (Check to be sure it is less than the divisor. Then multiply the quotient by the divisor and add the remainder. The number should be equal to the number being divided.)
- Have the students complete Exercises 2–12.

Power Practice

- Have a volunteer write Exercise 13 on the board. Then have students complete the equation, demonstrating why the quotient is the largest possible and that the remainder is the correct one.
- Have students complete Exercises 14–20. Then review each answer.

Learn with Partners & Parents

- Partners should experiment with many different pairs of numbers for the dividends. If they toss a 3, 4, and 7, they should see how many different dividends they can make from any two of the three.
- Ask: To get a greater quotient, what must you have for the divisor? (a very low divisor) To get a very low quotient, what must be true of the divisor? (It must be a very high number.)

Multiplying Greater Numbers



	Use hasic facts	Ilso hasic facts
What Can I Do? I want to multiply a 2-digit number by a 1-digit number.	Nultiply the ones. Multiply the ones. 34 $\times 2$ Multiply the ones. Write the product. 34 $\times 2$ 8 Multiply the tens. Write the product. 34 $\times 2$ 8	Nemember the basic multiplication facts. 59 $\times 4$ Multiply the ones. If the product is 10 or greated regroup 10 ones as 1 Write the regrouped over the tens column $\frac{3}{59}$ $\times \frac{4}{6}$ Multiply the tens. Action the regrouped tens. $\frac{3}{59}$ $\times \frac{4}{6}$ Multiply the tens. Action the regrouped tens.
Try It Use basi	ic facts. Find each produc	ct.
$\times 3$	$\begin{array}{c} 21 \\ \times 4 \\ \end{array} \\ \end{array} \\ \begin{array}{c} 3. \\ 41 \\ \times 2 \\ \end{array} \\ \end{array}$	4. 11 <u>× 7</u>
E 2 × 22 - 6	$1 \times 79 - 7 3 \times 27$	9 4 × 21 –

Name						
Use b	asic facts and re	egrouping. Fin	d ea	ch product.		Lesson 6-1
9. 	16 10.	52 <u>× 6</u>	11.	27 × 8	12.	34 <u>× 5</u>
13. 6	× 45 =		14.	9 × 15 =		
15 . 4	× 51 =		16.	4 × 52 =		
Po	wer Practio	ce Find eac	h pro	oduct.		
17. <u>×</u>	42 18.	31 <u>× 1</u>	19.	13 <u>× 3</u>	20.	34 × 2
21.	25 22.	74 <u>× 4</u>	23.	93 × 6	24.	87 × 5
25. <u>×</u>	54 26.	81 <u>× 5</u>	27.	37 <u>× 6</u>	28.	15 × 4
29. 9	× 38 =		30.	6 × 83 =		
31 . 8	× 29 =		32.	5 × 48 =		
33. 3	× 76 =		34.	7 × 14 =		
35. 9	× 82 =		36.	6 × 53 =		

USING LESSON 6-J

Lesson Goal

• Multiply a 2-digit number by a 1-digit number.

What the Student Needs to Know

- Find products of basic multiplication facts.
- Regroup in multiplication.

Getting Started

Use flash cards or mental math to review what students know about basic multiplication facts.

 How can you find the product of a fact you have forgotten? (Students' answers will possibly include such methods as skip counting, repeated addition, and making an array.)

What Can I Do?

Read the question and the response. Then read and discuss the first example.

 What two facts do you have to know to find the product of 34 × 2? (2 × 4 and 2 × 3) Which numbers should you multiply first? (the numbers in the ones places; 4 × 2)

Give students a few minutes to look over the second example.

- What is different about this example? (You have to regroup in the tens place.)
- Which numbers should you multiply first? (the numbers in the ones places) What is the product of the numbers in the ones places? ($4 \times$ 9 = 36) How should you show this product? (Write the 6 under the ones, then write the 3 over the tens place of the top factor.) Why do you write the tens over the top factor? (So you remember to add in 3 more tens after you multiply the tens 5 × 4.)
- What is the product of the bottom factor and the tens in the top factor? $(4 \times 5 = 20)$ What is the next step you have to do? (Add the 3 tens to that product.) What is that sum? (20 + 3 = 23)

	Learn Vhat Can I Do?	Use basic facts.	Use basic facts
	want to multiply a digit number by a 1-digit number.	Remember the basic multiplication facts.	Remember the bas multiplication facts
L		34 <u>× 2</u>	59 <u>× 4</u>
		Multiply the ones. Write the product.	Multiply the ones. If product is 10 or gre
		34 <u>×2</u> 8	Write the regrouped over the tens colum
		Multiply the tens. Write the product.	$ \begin{array}{c} 59 \\ \times 4 \\ 6 \end{array} $ Multiply the tens. A
		34 <u>× 2</u> 68	the regrouped tense $\frac{3}{59}$ $\times 4$
iles, Inc.			23 6
	Try It Use bas	ic facts. Find each produ	:t.
right © The McGraw.	23 2 × 3 69	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4. 11 × 7 77
ق 5.	2 × 33 = 66 6	6. 1 × 78 = 78 7 . 3 × 22	e = 66 8. 4 × 21 =

WHAT IF THE STUDENT NEEDS HELP TO

Find Products of Basic Multiplication Facts

- Have the student use arrays and skip counting to find the products of basic multiplication facts.
- Have the student use flash cards of basic facts to practice finding products on a daily basis, until the student can give each product with ease.

Regroup in Multiplication

Write a multiplication problem in a place-value chart (ones, tens, hundreds), such as 7×34 . Have the student treat the problem as two separate basic facts: 7×4 and 7×30 . Demonstrate how to write the two products in the correct places in the place-value chart and add to find the final product. Repeat until the student fully understands the concept.

.01	iC	cł	π.
	Η	Т	0
		3	4
	X		7
		2	8
+	2	1	0
	2	3	8

• 16	10 50	44 07	12 24)-J
9. 16	10. 52	11. 2/	1 2. 34	
<u>^ 0</u>	~ 0	~ 0	<u>^ 3</u>	
128	312	210	170	
13. 6 × 45 = _	270	14. 9 × 15 =	135	
15 . 4 × 51 = _	204	16. 4 × 52 =	208	
Power P	ractice Find	l each product.		
17. 42	18. 31	19. 13	20 . 34	
<u>× 2</u>	× 1	<u>× 3</u>	<u>× 2</u>	
84	31	39	68	
21. 25	22. 74	23. 93	24. 87	
<u>× 3</u>	<u>×4</u>	<u>× 6</u>	<u>× 5</u>	
75	296	558	435	
25 . 54	26. 81	27. 37	28. 15	
<u>× 7</u>	<u>× 5</u>	<u>× 6</u>	<u>×4</u>	
378	405	222	60	
29. 9 × 38 = _	342	30. 6 × 83 =	498	
81 . 8 × 29 = _	232	32. 5 × 48 =	240	
33. 3 × 76 = _	228	34. 7 × 14 =	98	
E 0 × 92 -	738	36 6 × 53 =	318	

WHAT IF THE STUDENT NEEDS HELP TO

- Demonstrate how to take the "shortcut" method of regrouping: writing the regrouped tens above the tens of the top factor. Remind the student that these tens must be added to the final product of the bottom factor times the tens of the top factor.
 - 2 34 \times 7 $\overline{238}$

Complete the Power Practice

- Review each incorrect or incomplete exercise with the student. Review the methods of repeated addition and making arrays to find the answers, as well as to check the answers.
- Have the student work in a place-value chart to keep numbers aligned.

• How do you write 23 in the answer? (Write the 3 in the tens place and write the 2 in the hundreds place.)

Try It

Have students read the instructions to complete the exercises. Ask:

- What two multiplication facts do you have to know to find the product in Exercise 1? (3 × 3 and 3 × 2) In Exercise 9? (8 × 6 and 8 × 1)
- Check for students' understanding of the order of multiplication. Students should know to begin multiplication at the right and work to the left.

Power Practice

- Have students complete the practice items. Ask volunteers to explain how they solved selected exercises.
- Review how students can determine products of basic facts they have forgotten: using an array, skip counting, or repeated addition.
- Have students describe the process of finding the product of multiplying a 2-digit number by a 1-digit number. Be sure students include all the possible steps necessary to determine the final product, including regrouping and adding in the regrouped tens.

Multiply and Divide by Multiples of 10 and 100



Learn



Use basic facts.

To multiply by 10 or 100, use basic facts to write the first digit.

 $7 \times 10 = ?$ $7 \times 100 = ?$

Use the basic fact $7 \times 1 = 7$.

Then count the number of zeros in 10 or 100. Write the number of zeros in the product.

10 has 1 zero, so 7 × 1**0** = 7**0**. 100 has 2 zeros, so 7 × 1**00** = 7**00**.

Use multiplication to divide.

To divide by 10 or 100, use what you know about multiplication.

 $60 \div 6 = ?$

 $600 \div 6 = ?$

You know that multiplication and division are related operations.

 $6 \times 10 = 60,$ so $60 \div 6 = 10.$

$$6 \times 100 = 600$$
,
so $600 \div 6 = 100$.

Try It Use basic facts. Find each product.



Use multiplication to complete each division sentence.

- **4.** $4 \times 100 = 400$ so $400 \div 4 =$ _____
- **5.** $100 \times 8 = 800$ so $800 \div 8 =$ _____
- **6.** $7 \times 10 = 70$ so $70 \div 7 =$ _____

Power Practice Find each product or quotient.

7. 100 × 5 =		8. 400 ÷ 4 =	
9. 700 ÷ 7 =		10. 2 × 100 =	
11. 30 ÷ 3 =		12. 100 × 8 =	
13. 100 <u>× 2</u>	14. 8)800	15. 100 <u>× 3</u>	16. 9)900
17. 1003	18. 4)400	19. 100 <u>× 5</u>	20. 9)90
21. 10 × 3 =	-	22. 600 ÷ 6 =	
23. 50 ÷ 5 =	-	24. 100 × 4 =	
25. 10 × 8 =	-	26. 40 ÷ 4 = .	

Lesson

USING LESSON 6-K

Lesson Goal

• Multiply and divide by multiples of 10 and 100.

What the Student Needs to Know

- Multiply by 1.
- Divide by 1.
- Understand the relationship between 10 and 100.

Getting Started

Find out what students know about multiplication facts involving 1. Write the following multiplication sentence on the board and have students solve:

4 × 1 = ____ (4)

Ask:

- If you change the first factor to 5, what is the answer? (5) What is the answer if you change the first factor to 23? (23)
- If you multiply any number by 1, what will the product be? (the number you are multiplying)

Write the following division sentence on the board and have students solve:

 $4 \div 1 = ___(4)$

Ask:

- If you change the number being divided to 9, what will the quotient be? (9) What is the quotient if you change the number being divided to 41? (41)
- If you divide any number by one, what will the quotient be? (the number you are dividing)

What Can I Do?

- Read the question and the response. Then read and discuss the multiplication sentences. Ask:
- What multiplication fact do you need to know to solve these problems? (7 × 1 = 7)



WHAT IF THE STUDENT NEEDS HELP TO

Multiply by 1

- Use counters to illustrate multiplication facts involving the numbers 2 through 9. Then introduce facts for multiplying by 1. Demonstrate that, just as 2 × 5 is represented by 2 groups of 5, 1 × 5 is represented by 1 group of 5. Be sure the student understands that any number multiplied by 1 is equal to itself.
- Have the student use counters to illustrate and solve the multiplication facts for 1 until he or she can do so with ease.

Divide by 1

- Use counters to illustrate division facts for the number 1. Explain that in each fact, the original number is broken down into "groups" of 1, and that this means the quotient will be equal to the number being divided.
- Have the student use counters to illustrate and solve the division facts for 1 until he or she can do so with ease.

Try It Use basic facts.	Find each product.
1. 10 × 9 = <u>90</u> 2. 8	$3 \times 100 = 800$ 3. $4 \times 100 = 400$
Use multiplication to compl	lete each division sentence.
4. $4 \times 100 = 400$ so $400 \div 400$	4 = <u>100</u>
5. $100 \times 8 = 800 \text{ so } 800 \div 8$	3 = _100 _
6. 7 × 10 = 70 so 70 ÷ 7 = .	
Power Practice	ind each product or quotient.
7. 100 × 5 = <u>500</u>	8. 400 ÷ 4 = <u>100</u>
9. 700 ÷ 7 = <u>100</u>	10. 2 × 100 = _200
11. 30 ÷ 3 = 10	12. 100 × 8 = <u>800</u>
13. 100 14. 8)800 $\frac{\times 2}{200}$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
17. 100 18. 4)400 $\frac{\times 3}{300}$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
21. 10 × 3 = <u>30</u>	22. $600 \div 6 = 100$
23. 50 ÷ 5 = <u>10</u>	24. 100 × 4 = <u>400</u>
25. 10 × 8 = <u>80</u>	26. 40 ÷ 4 = <u>10</u>

WHAT IF THE STUDENT NEEDS HELP TO

Understand the Relationship Between 10 and 100

- Use grid strips and grid paper to model the relationship between the two numbers. Demonstrate how it takes 10 strips of 10 grid squares to make 100, and 10 grids of 100 squares to make 1,000.
- Have the student practice regrouping tens into hundreds, as well as hundreds into tens, until it can be done with ease.

Complete the Power Practice

- For each incorrect multiplication exercise, have the student identify the multiplication fact relevant to the problem. Then have the student explain how many zeros should be added to the product to arrive at the correct answer.
- For each incorrect division exercise, have the student write a related multiplication sentence. Then have the student identify the number in the multiplication sentence that is the quotient of the division sentence.

- If you multiply by 10, how many zeros do you write in the product?
 (1) If you multiply by 100? (2)
- Read and discuss the division sentences. Ask:
- How do you use multiplication sentences to solve these problems? (You figure out what number × 10 = 60 and what number × 100 = 600. The missing factor in the multiplication sentence is the quotient in the division sentence.)
- What division fact will also help you solve these problems? ($6 \div 6 = 1$)

Try It

Have students look at Exercise 1. Ask:

- What multiplication fact do you need to know to solve this problem? (1 × 9 = 9)
- How many zeros will you write at the end of the product? (1)

Then have students complete Exercises 1–3.

Have students look at Exercise 4. Ask:

• Which number in the multiplication sentence is the quotient for the division sentence? (the second factor, 100)

Then have students complete Exercises 4–6.

Power Practice

• Have students complete the practice items. Then review each answer.

Use Place Value to Round to the Nearest Ten, Hundred, and Thousand



67

Learn



For the nearest ten, use the ones digit.

Round 67 to the nearest ten.

- Find the **tens** place.
- Look at the digit in the ones place. 67
 If the ones digit is less than 5, round down.
 If the ones digit is 5 or greater, round up.

Since 7 > 5, 67 rounds up to 70.

For the nearest hundred, use the tens digit.

Round 426 to the nearest hundred.

- Find the **hundreds** place. <u>4</u>26
- Look at the digit in the tens place. <u>4</u>26

If the tens digit is 5 or greater, round up. If the tens digit is less than 5, round down. Since 2 < 5, 426 rounds down to 400.

For the nearest thousand, use the hundreds digit.

Round 3,513 to the nearest thousand.

- Find the **thousands** place. <u>3</u>,513
- Look at the digit in the hundreds place. <u>3</u>,**5**13 If the hundreds digit is 5 or greater, round up. If the hundreds digit is less than 5, round down.

Since 5 = 5, 3,513 rounds up to 4,000.

Try It Round each number.

1. 345

Nearest **ten:** 3<u>4</u>5 _____

Nearest hundred: <u>3</u>45

2. 3,807

Nearest **ten:** 3,8<u>0</u>7

Nearest **hundred:** 3,<u>8</u>07_____

Nearest thousand: <u>3</u>,807

Ν	ar	n	e
---	----	---	---

Power Practice	Round each number nearest <i>ten</i> .	to the 6-L
3. 42	4. 38	5. 6
6. 417	7. 326	8. 575
9. 3,517	10. 3,224	11. 2,889
Round each number to	the nearest hundred.	
12. 427	13. 453	14. 178
15. 3,211	16. 2,319	17. 1,296
18. 3,902	19. 4,890	20. 2,711
Round each number to	the nearest thousand.	
21. 2,623	22. 1,451	23. 2,366
24. 3,500	25. 2,229	26. 1,893
Round each number to	the underlined place.	
27. <u>6</u> 52	28. <u>8</u> 03	29. <u>1</u> 74
30. 4 <u>3</u> 6	31. 7 <u>4</u> 4	32. 6 <u>8</u> 9
33. 1, <u>5</u> 38	34. 5, <u>6</u> 58	35. 8, <u>5</u> 02
36. <u>3</u> ,218	37. <u>3</u> ,609	38. <u>4</u> ,517
39. 2, <u>5</u> 98	40. 3,6 <u>4</u> 9	41. <u>7</u> ,288

USING LESSON 6-L

Lesson Goal

• Round to the nearest ten, hundred, or thousand.

What the Student Needs to Know

- Identify the ones, tens, and hundreds digits in a number.
- Identify the two multiples of 10 closest to a number.
- Identify the two multiples of 100 closest to a number.
- Identify the two multiples of 1,000 closest to a number.

Getting Started

- Draw a number line (10 to 20) on the board. Mark the part to the left of 15 with one color and the part to the right of 15 with a different color.
- Label the numbers 10–14 with the first color and 15–20 with the second color.
- Review the rule for rounding to the nearest ten. Ask a volunteer to explain the rule for rounding a number halfway between two tens. (Round to the greater ten.)
- Point to different numbers on the number line. Ask students to round to the nearest ten.
- Repeat the process with a number line from 260 to 270.
- Next, draw a number line on the board showing multiples of 10 from 4,500 to 4,600. Ask: When rounding to the nearest hundred, which numbers round up to 4,600? (4,550 through 4,600) Which numbers round down to 4,500? (4,500 through 4,540) Which digit do you use when making your decision to round to the nearest hundred? (the tens digit)

What Can I Do?

Explain to the students how they can use place value to round to the nearest ten. Say:

If the digit in the ones place is 5, 6, 7, 8, or 9, then round to the next greater ten. If the digit is less than 5, do not change the digit in the tens place.

Use Place Valu Nearest Ten, H Thousand	ie to Rour lundred, a	nd to the and 6	sson -L
What Can I Do? I want to round to the nearest ten hundred and thousand.	For the neares Round 67 to the Find the tens Look at the di If the ones digit Since 7 > 5, 67 r	t ten, use the ones digit. e nearest ten. place. git in the ones place. : is less than 5, round down. : is 5 or greater, round up. rounds up to 70.	<u>6</u>
	For the neares	t hundred, use the tens dig	it.
	Round 426 to the Find the hund • Find the hund • Look at the di If the tens digit If the tens digit Since 2 < 5, 426	the nearest hundred. dreds place. Igit in the tens place. is 5 or greater, round up. is less than 5, round down. 5 rounds down to 400.	<u>4</u> 2 <u>4</u> 2
	For the nearest	thousand, use the hundreds	s dig
	Round 3,513 to • Find the thou • Look at the di If the hundreds up. If the hundr round down. Since 5 = 5,3,5	the nearest thousand. Is ands place. Igit in the hundreds place. digit is 5 or greater, round reds digit is less than 5, 13 rounds up to 4,000.	<u>3</u> ,51 <u>3</u> , 5 1
Try it Round eac	h number.		
1. 345		2. 3,807	
Nearest ten: 345 350	·	Nearest ten: 3,8 <u>0</u> 7 3,810	
Nearest hundred: <u>3</u> 45	300	Nearest hundred: 3, <u>8</u> 07	800
		Nearest thousand: 3,807 4	.000

WHAT IF THE STUDENT NEEDS HELP TO

Identify the Ones, Tens, and Hundreds Digits in a Number

- Be sure the student realizes that the position of a digit represents its value. Help him or her understand that our system uses the digits 0 to 9 in different positions to write any number. Emphasize that zero represents a lack of ones in a number containing tens and ones.
- Using a place-value chart is a good way to make sure digits are in the correct places. To help the student see the place-value relationships in a number, model the number

with actual objects (baseten blocks, bundles of craft sticks, etc.), write the digits in the chart, and then write the number in standard form.

Write 468 on the board. Ask: How many hundreds are there in this number? (4) Which digit shows the number of hundreds? (the digit 4) Repeat for the tens and ones digits. If necessary, provide base-ten blocks and have the student model the numbers.

Name		
Power Practi	Round each numb nearest <i>ten</i> .	per to the 6-L
3. 42 40	4. 38 40	5. 6 <u>10</u>
6. 417 420	7. 326 <u>330</u>	8. 575 <u>580</u>
9. 3,517 <u>3,520</u>	10. 3,224 <u>3,220</u>	11. 2,889 <u>2,890</u>
Round each number	to the nearest hundred.	
12. 427 <u>400</u>	13. 453 	14. 178 <u>200</u>
15. 3,211 <u>3,200</u>	16. 2,319 <u>2,300</u>	17. 1,296 <u>1,300</u>
18. 3,902 <u>3,900</u>	19. 4,890 <u>4,900</u>	20. 2,711 _2,700
Round each number	to the nearest thousand	d.
21. 2,623 <u>3,000</u>	22. 1,451 <u>1,000</u>	23. 2,366 _2,000
24. 3,500 <u>4,000</u>	25. 2,229 <u>2,000</u>	26. 1,893 <u>2,000</u>
Round each number	to the underlined place	2.
27. <u>6</u> 52 <u>700</u>	28. <u>8</u> 03 <u>800</u>	29. <u>1</u> 74 200
30. 4 <u>3</u> 6 <u>440</u>	31. 7 <u>4</u> 4 	32. 6 <u>8</u> 9 <u>690</u>
33. 1 <u>,5</u> 38 <u>1,500</u>	34. 5, <u>6</u> 58 <u>5,700</u>	35. 8, <u>5</u> 02 <u>8,500</u>
36. <u>3</u> ,218 <u>3,000</u>	37. <u>3</u> ,609 <u>4,000</u>	38. <u>4</u> ,517 <u>5,000</u>
39. 2, <u>5</u> 98 <u>2,600</u>	40. 3,6 <u>4</u> 9 <u>3,650</u>	41. <u>7</u> ,288 <u>7,000</u>

WHAT IF THE STUDENT NEEDS HELP TO

Identify the Two Multiples of 10 Closest to a Number

 Have the student count aloud by tens to 300. Write the numbers in three columns as the student counts. Give the student numbers in this range and have him or her tell the two closest tens.

Identify the Two Multiples of 100 Closest to a Number

- Have the student count aloud by hundreds to 2,000. Write the numbers in two columns on the board.
- Give the student numbers up through 1,999 and have him or her identify the two closest hundreds.

Identify the Two Multiples of 1,000 Closest to a Number

- Have the student count aloud by thousands to 10,000. Write the numbers in two columns on the board.
- Give the student numbers up through 9,999 and have him or her identify the two closest thousands.

Complete the Power Practice

 You can provide opportunities for the student to round numbers by gathering numbers from newspapers or Web sites and having him or her round the numbers to specific places.

Try It

Do the first exercise with the class. Draw two number lines on the board: one showing multiples of 1 from 340 to 350 for rounding 345 to the nearest ten and one showing multiples of 10 from 300 to 400 for rounding 345 to the nearest hundred.

- What are the two tens closest to 345? (340 and 350). What are the two hundreds closest to 345? (300 and 400). Help students see that they must choose between a pair of possible numbers.
- Before the students complete Exercise 2, check that they fully grasp the importance of ones in rounding to the nearest ten, the importance of tens in rounding to the nearest hundred, and the importance of hundreds in rounding to the nearest thousand.

Power Practice

- Have the students complete the practice items. Then review each answer.
- Be sure students use the correct digit to decide. They should look at the digit to the right of the place to which they are rounding.
- For Exercises 3–26, have students underline the digit to be rounded and then circle the digit next to it on the right. For Exercises 27–41, they should circle the digit to the right of the underlined digit.



-25

<u>-25</u> 0

Try It	Complete each	plete each division.		
2	1	1		

1. 3)93	2. 5)80	3. 4)56	4. 6)84
- 9	<u> </u>	4	<u> </u>
3	30		



USING LESSON 6-M

Lesson Goal

• Divide 2- and 3-digit numbers by a 1-digit divisor.

What the Student Needs to Know

- Recall basic division facts.
- Subtract 1- and 2-digit numbers.

Getting Started

To assess students' knowledge of multiplication facts, have them complete a multiplication table.

What Can I Do?

Have the students read the question and the response. Ask students to look at the example. Ask:

- What is the first step in finding the quotient? (Divide the divisor into the first digit of the dividend.) What number will you write in the quotient? Where will you write it? (Write a 1 over the tens place of the dividend.) What is the next step? (Multiply the 1 in the quotient times the divisor and subtract that product from the dividend.) What is the difference? (7 - 5 = 2)
- What is the next step? (Bring down the ones digit from the dividend so you can divide again.) What number will you divide now? (25) What is 25 ÷ 5? (5) What is the next step? (Multiply 5 times 5 and subtract 25 from the number you divided.) What is that difference? (25 25 = 0) Do we have a remainder? (No)

Try It

Direct students' attention to Exercise 1. Say:

- Part of this exercise has been done for you. What is the next step in finding the quotient? (Divide the 3 by 3.) What is that quotient? (1)
- What step comes next? (Multiply 1 × 3 and subtract the product from 3.)

Power Practice

 Have the student complete the practice items. Then review each answer.

Learn		Use basic facts		
What Car I want to d a 1-digit c	i I Do? ivide by livisor.	Divide from left STEP 1 5)75 <u>-5</u> 25	to right. STEP 2 5)75 <u>-5</u> 25 -25	STEP 3 5)75 -5 25 -25 0
Try It Co 1. $3)93$ -9 3 -3 0	mplete eac 2. $5)80$ $\frac{-5}{30}$ $\frac{-30}{0}$	h division. 3. $4)\overline{56}$ -4 16 -16 0	$4.6)84 - \frac{-6}{24} - \frac{-24}{0}$	
Power Pr 5.7)56	actice 6. 9)72	Find each quoti 7. 4)28	ent. 8. 3)51	
174	70	_ 53	142	

WHAT IF THE STUDENT NEEDS HELP TO

Recall Basic Division Facts

 Have the student use flash cards to practice basic division facts for 10 to 15 minutes each day until the student can recall the quotients of division facts automatically.

Subtract 1- and 2-Digit Numbers

- Have the student practice finding the difference of basic subtraction facts. Then introduce finding differences when subtracting a 1-digit number from a 2-digit number.
- Help the student develop a step-by-step plan for subtracting a 2-digit number from a 2- or 3-digit number.

Complete the Power Practice

Discuss each incorrect or incomplete answer with the student. Have the student describe the method used to divide. Be sure the student has a firm grasp of basic division and subtraction. Help the student find and correct all errors.

Name			
Divide by	One-Digit	Number	CS Lesson 6-N
Learn	Choose tl	he quotient.	Multiply and subtract.
What Can I Do I want to divide by one-digit number.	Pick the g possible r	reatest number. (7) 6)45 –	The remainder must be less than the divisor. 7 R(3) 6)45 -42 $3 \leftarrow (3) < 6$
Try It Finis 7 R 1. 5)37 <u>-35</u>	sh each problem 3 R_ 2. 6)20 <u>-18</u>	• 3. 8)31 <u>-24</u>	88_R 4. 3)25 24
7 R_ 5. 9)64 	4 R_ 6. 5)23 	6 F 7. 2)13 	8 . 6)43
<u>4</u> R_ 9. 3)14 	6 R_ 10. 7)47 	6 F 11. 4)26 	12. 9)43

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Name			Lesson
Divide.			6-N
13. 3)26	14. 6)38	15. 9)52	16. 4)35
17. 8)43	18. 2)11	19. 5)18	20. 7)32
Power Prac	ctice Rewrite paper. F	each proble ind the quo	em on another piece of tient and remainder.
21. 26 ÷ 6 =	_ 22. 17 ÷ 3 =	=	23. 24 ÷ 7 =
24. 28 ÷ 8 =	_ 25. 17 ÷ 4 =	=	Learn with Partners & Parents
26. 60 ÷ 7 =	27. 28 ÷ 5 =		Phone Digit Division Each person needs 10 cards or slips of paper.
			• Write one digit of your phone number on each card.
28. 15 ÷ 2 =	_ 29. 70 ÷ 9 =	=	• Use your telephone digits to make problems like this: ÷ Use three digits for each
30. 51 ÷ 6 =	_ 31. 11 ÷ 3 =	=	 Problem. Make 10 different division problems
32. 23 ÷ 9 =	33. 25 ÷ 4 =	=	 Find the quotient for each of your telephone division problems.

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USING LESSON 6-N

Lesson Goal

• Divide two-digit numbers by one-digit numbers.

What the Student Needs to Know

- Complete division facts.
- Complete multiplication facts.
- Subtract one- and two-digit numbers.

Getting Started

• Write these two division problems on the board:

28 ÷ 7 = ____

30 ÷ 7 = ___

Ask: *How are the problems the same? How are they different?* (They have the same divisor, 7. They have different dividends.)

- Have two students draw models to show the problems 28 ÷ 7 and 30 ÷ 7. Point out that the second problem has a remainder, or a number left over.
- How do we write the answer to a division problem when there is a remainder? (The letter R is used to show the remainder; for example, the answer to 30 ÷ 7 is 4 R2.)
- Write 4 R2 on the board. Ask: *How do we read this answer*? (4 with a remainder of 2; 4 remainder 2; 4 with 2 left over)
- Write on the board: 30 ÷ 7 = 4 R2. Ask: What is another way to show this problem? (Have a student show the vertical division notation.)
- Work the problem 30 ÷ 7 for students, showing how 28 is subtracted from 30 to get a remainder of 2.



• Go over the terms used to describe the parts of a division problem: *divisor, dividend, product, quotient, remainder.*



WHAT IF THE STUDENT NEEDS HELP TO

Complete Division Facts

- Have the student use flash cards to identify which facts still need to be learned.
- Review how to use multiplication to solve division problems.
 For example, to find 42 ÷ 7, the student can think: "What number times 7 equals 42? Since 6 times 7 is 42, 42 divided by 7 must be 6."
- Have the student use counters to practice division facts. For example, to find 72 ÷ 8, the student should use 72 counters and make equal groups of 8 counters. The student will find that he or she can make 9 groups of 8 counters.

Complete Multiplication Facts

- Have the student use flash cards to identify which facts still need to be learned.
- Have the student use grid paper to draw rectangles for the facts they still need to learn. Each rectangle stands for two facts; for example, a 5-by-7 rectangle stands for $5 \times 7 = 35$ as well as $7 \times 5 = 35$.
- Have the students work with a partner to practice their facts. Each student needs a set of 0–9 digit cards. Students turn the cards over and each student picks a card. The first student to call out the product gets 1 point.

Divide. 8 R2 13. 3)26	<u>6</u> R2 14. 6)38	5 R7 15. 9)52	Lesson 6-N 8 R3 16. 4)35
5 R3 17. 8)43	<u>5</u> R1 18. 2)11	3 R3 19. 5)18	4 R4 20. 7)32
Power Pra	actice Rewrite paper.	e each problem o Find the quotien	n another piece of t and remainder.
24. 28 ÷ 8 = <u>3</u>	<u>R4</u> 25. 17 ÷ 2	4 = <u>4 R1</u> Par	e a r n w i t h thers & Parents hone Digit Division
26. 60 ÷ 7 = <u>8</u>	R4 27. 28 ÷ 5	5 = <u>5 R3</u> • Wi ph ca	h person needs 10 ds or slips of paper. rite one digit of your none number on each rd.
28. 15 ÷ 2 = <u>7</u>	R1 29. 70 ÷ 9 R3 31. 11 ÷ 3	$\mathbf{P} = \mathbf{7R7}$ \mathbf{V} \mathbf{S} $\mathbf{S} = \mathbf{3R2}$ \mathbf{S} S	e your telephone gits to make problems e this: ÷ e three digits for each oblem. ake 10 different
30. 51 ÷ 6 = <u></u>		div	vision problems.

WHAT IF THE STUDENT NEEDS HELP TO

Subtract One- and Two-Digit Numbers

- Provide the student with one set of 0–9 number cards. Have the student pick two cards and make as many subtraction problems as he or she can using the chosen digits.
- Review the regrouping process for the student by helping him or her use base-ten blocks to show subtraction of some twodigit numbers.

Complete the Power Practice

 Check that the students is rewriting the problems using the vertical division form:

> 4 R27)30 -282

The student may make mistakes if they try to do these problems mentally.

• For each problem have the student tell you how he or she decided what quotient to write.

What Can I Do?

Read the question and the response. Then read and discuss the example. Ask:

- What happens if the digit in the quotient is not great enough? (The remainder will be greater than the divisor, 6.)
- What happens if the digit in the quotient is too great? (You won't be able to subtract because the product will be greater than 45.)

Try It

Have students look over the three rows for Exercises 1–12. Ask:

- What are you to do in the first row? (Subtract to find the remainder.)
- What are you to do in the last two rows? (Multiply the divisor times the quotient to get a product; subtract that product from the dividend to get the remainder.)
- Have students look at Exercises 13–20 on the next page. Ask: How are the Exercises 13 through 20 different from Exercises 21–33? (These problems are already set up in vertical form.)

Power Practice

- Remind students to first rewrite each problem using the vertical division notation.
- As students work, check that they are correctly translating the horizontal problems into vertical form. In particular, make sure they know which number is the divisor.

Learn with Partners & Parents

- If you do not wish students to use their telephone numbers, have them use a set of 0–9 number cards.
- This activity can be done individually. If students work in pairs, have them take turns making and solving a problem.