Grade 5
Family Resource Bundle

Grade 5

ANSWER KEY Text #1 "What Do Fish Have to Do with Anything?"

by Avi 1994

1. RL.KID.2

PART A: Which of the following describes a theme of the short story?

A. After ignoring others' suffering for so long, people eventually stop seeing it.
B. People don't want to sacrifice their comforts to help someone else.
C. Once people are unhappy, it's difficult for them to achieve happiness again.
D. Money can provide people with the foundation for happiness.

2. RL.KID.1

PART B: Which detail from the text best supports the answer to Part A?

A. "'Money,' Mrs. Markham suddenly said. 'Money will cure a lot of unhappiness. That's why that man was begging.'" (Paragraph 38)
B. "During the twenty minutes that Willie watched, no one who passed looked in the beggar's direction. Willie wondered if they even saw the man." (Paragraph 51)
C. "For long hours he sat in dark rooms. Sometimes he drank. His parents began to argue a lot. One day, his father was gone." (Paragraph 97)
D. "The man said, 'You have to look at me, then at the cake, and then you're going to have to decide for yourself.'" (Paragraph 192)

3. RL.KID.3

PART A: Which of the following describes the main difference in how Willie and his mother treat the beggar?

A. Willie wants to know more about the man's unhappiness, while his mother doesn't want Willie to have anything to do with the man.
B. Willie wants to talk to the man, while his mother wishes to give the man money or food to survive.
C. Willie wants to help cure the man's unhappiness, while his mother believes the man should see a doctor to get help.
D. Willie wants to give the man more cake, while his mother doesn't think there is enough for the two of them.

4. RL.KID.1

PART B: Which TWO quotes from the text best support the answer to Part A?

A. "No one seemed to pay him any mind. Willie was certain he had never seen a man so utterly alone." (Paragraph 6)
B. "'A person can be unhappy for many reasons.' She turned to stare out the window, as if an answer might be there." (Paragraph 30)

C. "'Money,' Mrs. Markham suddenly said. "Money will cure a lot of unhappiness. That's why that man was begging." (Paragraph 38)
D. "Willie said, 'I've never seen anyone look so unhappy as you do. So I figure you must know a lot about it.'" (Paragraph 132)
E. "After a moment he cut the cake into two pieces, each an inch and a half wide. He gave one piece to the man and kept the other in the box." (Paragraph 194)
F. "'Willie, I forbid you to talk to him. Do you understand me? Do you? Answer me!' She was shrill." (Paragraph 223)

5. RL.CS.4

What does the description of the man as "some spat-out piece of chewing gum on the pavement" from paragraph 6 suggest about the man?

A. The man is disregarded by others.
B. The man used to be more than what he is now.
C. The man's appearance is unkempt and dirty.
D. The man takes up very little space.

6. RL.CS.5

"My name isn't Willie. It's William" (Paragraph 239). What does the quoted sentence contribute to the overall structure of the story?

A. It describes the confusion Willie faces as he realizes that his family will never be the same.
B. It explains why Willie wants his mother to call him William now that his father is gone.
C. It suggests that Willie knows he is growing up, but his mother is blind to it.
D. It supports why Willie wants to live on the streets rather than live with his mother.

7. RL.CS.5

How does the information about the fish in the cave becoming blind contribute to the development of the short story's theme?

1. **Answers will vary; students should discuss how the information about the blind fish acts as a metaphor for the characters in the story who ignore the man begging for money. For instance, Willie first brings up the fish to his mother after he questions her further about why he can't look at the man. Willie tells his mother "Fish who live in caves have no eyes" (Paragraph 112). Willie's mother not only refuses to physically look at the man begging, but also refuses to acknowledge his suffering. It is through her refusal to see the man, in all sense of the word, that she becomes blind to his suffering. While she can acknowledge that the man is unhappy, she has no interest in finding out why he is unhappy or alleviating his unhappiness. The darkness that Willie's mother lives in is the darkness of her own ignorance and indifference. Additionally, students should discuss how the man immediately believes Willie when he tells the man "'In school my teacher said there are fish who live in caves and the caves are so dark the fish don't have eyes'" (Paragraph 152). The man tells Willie that he believes him because "You got eyes. You see. You ain't no fish" (Paragraph 161). This section emphasizes Willie's ability to see another person for who they truly are, including their suffering. He has not been blinded by the dark or indifference. Finally, students can discuss the conclusion of the story when Willie tells his**

mother "'No, you can't [see]. You're a fish. You live in a cave," in response to his mother's claims that the man was bothering people (Paragraph 236). This shows that Willie's mother is unable to truly see or feel for people who are suffering.

ANSWER KEY Text #2 "At the Head of Her Class, and Homeless"

by NPR Staff 2014

1. RI.KID.2

Which of the following best identifies the central idea of the article?

A. A homeless high school student is motivated to help support her fellow students get scholarships for college.
B. The best way to succeed in school is to study hard in and out of the classroom.
C. Scholarships should be given to homeless high school students who excel both in and out of the classroom.
D. A high school student perseveres through the difficulties of homelessness and is awarded a full college scholarship.

2. RI.CS.4

Part A: What does the word "reluctantly" most closely mean as it is used in paragraph 2?

A. unenthusiastically
B. patiently
C. surprisingly
D. angrily

3. RI.KID.1

PART B: Which of the following phrases from the text best supports the answer to Part A?

A. "The shelter houses up to 300 adults and 500 children" (Paragraph 2)
B. "I wouldn't say it's my favorite place." (Paragraph 3)
C. "she would often wake up in the middle of the night" (Paragraph 4)
D. "Melson says she didn't keep her homelessness a secret from classmates" (Paragraph 4)

4. RI.KID.3

Which statement best describes Rashema Melson's plans for college?

A. Melson wishes that she could go to college, but she is instead planning on staying at home to support her family.
B. Melson is attending a college that is far from home because she wants to try to forget about her rough childhood.

C. Melson wants to go to college so that she can start a homeless shelter that is more helpful than the one where she lived.
D. **Melson is attending college with a scholarship and already has plans about what to do after graduating.**

5. RI.CS.5

How does paragraph 14 contribute to the development of ideas in the article?

1. **Answers will vary; students should explain that paragraph 14 provides specific lessons that Melson has learned through the adversity that she has faced in life. For example, she says, "You just have to have hope and faith and don't let it change who you are," and "just because you live in a shelter — that's not who you are, that's just where you reside at for the moment." In other words, Melson is encouraging other children who are homeless to persevere through the difficulties they face in life. Most of the article focuses on describing Melson's life, but in this paragraph, the author uses Melson's own words to explain what she has learned from her life that can benefit others.**

Related Media Links and Descriptions

Related Media #1: " People Walk Past Loved Ones Disguised as Homeless on the Street Social Experiment"
In this video, people are disguised to look homeless and put in the path of their family members. Ask students to discuss how people react to their family members' homeless appearance. How do their actions compare to how people treat the beggar in "What Do Fish Have to Do with Anything?" What do you think motivated the actions of the people in the video and the characters in the short story?(3:34)

Related Media #2: " Can Money Buy Happiness?"
This video from AsapSCIENCE challenges the idea that money can't buy happiness. Have students compare the ideas explored in this video with the texts.. Under what circumstances, if any, can money buy happiness?(2:49)

Grab and Go Writing Checklists

Grades 3-5 Short Response

The following checklists have been provided for families to use as a reference for student writing expectations.

Informational /Explanatory	❑ Begins with a topic sentence that addresses the main question ❑ Explains an idea that supports the topic sentence (at least 1-2 sentences) ❑ Uses evidence (facts and details) from the text to support the idea ❑ Explains how the text evidence supports the topic and idea (at least 1-2 sentences) ❑ Ends with a concluding statement
Entire Response	❑ Has few errors in sentence formatting, capitalization, punctuation, and spelling.

Opinion	❑ Begins by stating an opinion in response to the main question ❑ Explains an idea that supports the opinion (at least 1-2 sentences) ❑ Uses evidence (facts and details) from the text to support the opinion ❑ Explains how the text evidence supports the idea and opinion (at least 1-2 sentences) ❑ Ends with a concluding statement
Entire Response	❑ Has few errors in sentence formatting, capitalization, punctuation, and spelling.

Explore Dividing Multi-Digit Numbers

You already know how to divide a multi-digit number by a one-digit divisor. Now you will learn how to divide with two-digit divisors. Use what you know to try to solve the problem below.

There are 92 fifth graders at Wilson Middle School and 23 students in each fifth-grade classroom. How many fifth-grade classrooms are there at Wilson Middle School?

Learning Target

- Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

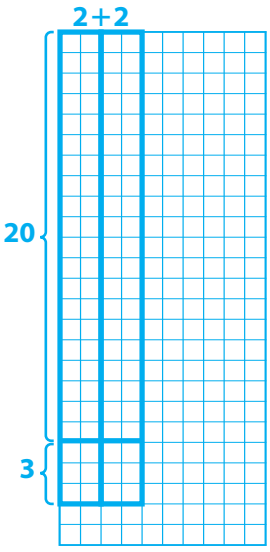
SMP 1, 2, 3, 4, 5, 6, 7, 8

TRY IT

Possible student work:

Sample A

92 ÷ 23 = ? means 23 × ? = 92
Use estimation: There are about 4 groups of 20 in 90.
Try 4.
23 × 4 = 92
There are 4 fifth-grade classrooms.



Sample B

$(23 \times 2) = 46$

$$\begin{array}{r} 92 \\ -\ 46 \\ \hline 46 \end{array}$$

$(23 \times 2) = 46$

$$\begin{array}{r} 46 \\ -\ 46 \\ \hline 0 \end{array}$$

There are 4 fifth-grade classrooms.

Math Toolkit

- base-ten blocks
- base-ten grid paper
- grid paper
- index cards
- multiplication models

DISCUSS IT

Ask your partner: Can you explain that again?

Tell your partner: I started by . . .

CONNECT IT

1 LOOK BACK

What is 92 ÷ 23? Explain your reasoning.

4; Possible answer: 23 × 4 = 92, so 92 ÷ 23 = 4.

2 LOOK AHEAD

Multiplication and division are called **inverse operations** because they "undo" each other. For example, the related multiplication and division equations $5 \times 7 = 35$ and $35 \div 5 = 7$ show that if you multiply a number by 5 and then divide the result by 5, you end up with the number you started with.

Think about the related equations $264 \div 12 = ?$ and $12 \times ? = 264$.

You can use the related multiplication equation to help you divide.

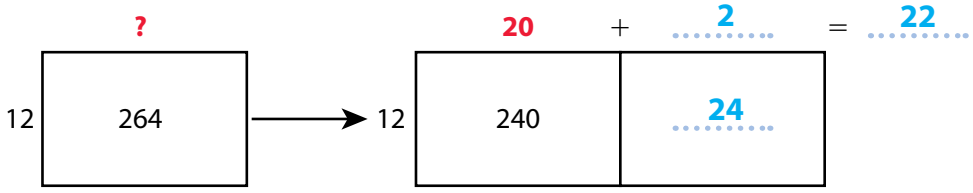
a. Start by listing products of the divisor, 12, and **multiples of 10**.

Multiple of 10	10	20	30	40	50
12 × Multiple of 10	120	240	360	480	600

b. Which row of the table above is related to the dividend in 264 ÷ 12? How could you use the table above to estimate the quotient 264 ÷ 12?

the second row; Possible answer: You can see that 264 is between 240 and 360, so you know the quotient should be between 20 and 30.

c. Start with 12 × **a multiple of 10** to divide 264 by 12 using an area model. Complete the missing numbers.



3 REFLECT

How can you use the inverse relationship between multiplication and division to check your answer to 264 ÷ 12?

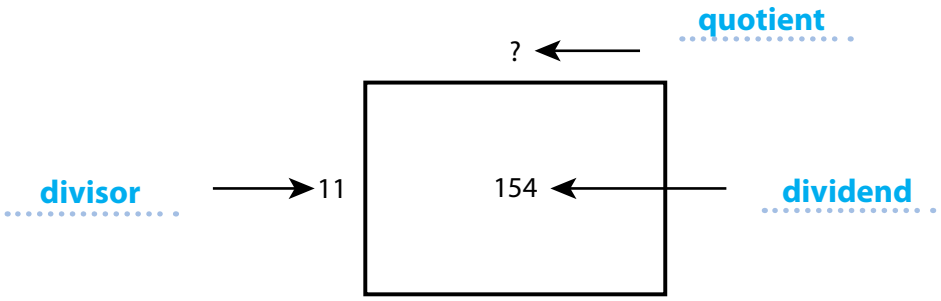
Possible answer: You can multiply 12 and 22. 12 × 22 = 264, so 264 ÷ 12 = 22.

Prepare for Dividing Multi-Digit Numbers

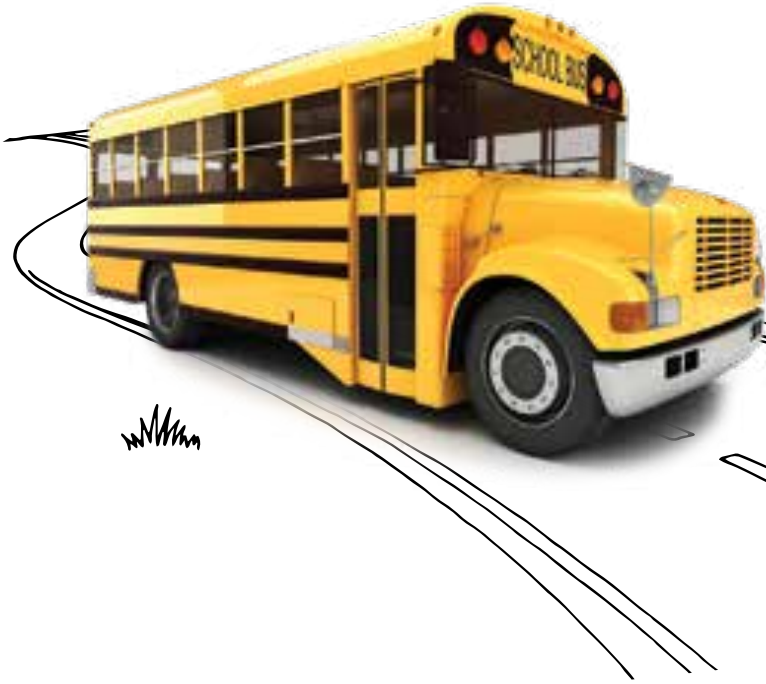
1 Think about what you know about division. Fill in each box. Use words, numbers, and pictures. Show as many ideas as you can. **Possible answers:**

Word	In My Own Words	Example
dividend	**the number that is divided by another number**	**(56) ÷ 7 = 8**
divisor	**the number by which another number is divided**	**200 ÷ (10) = 20**
quotient	**the result of division**	**150 ÷ 25 = (6)**

2 Label the *dividend*, *divisor*, and *quotient* of the division equation shown by the area model. Then write the division equation.



154 ÷ 11 = ?



3 Solve the problem. Show your work.

There are 95 students on a field trip and 19 students on each bus. How many buses of students are there on the field trip?

Possible student work:
95 ÷ 19 = ? means 19 × ? = 95.
Use estimation: 95 is close to 100 and 19 is close to 20. There are 5 groups of 20 in 100. Try 5. 19 × 5 = 95

Solution **There are 5 buses of students.**

4 Check your answer. Show your work.

Possible student work:
If 95 ÷ 19 = 5, then 95 ÷ 5 should be equal to 19.

$$\begin{array}{r} 19 \\ 5\overline{)95} \\ -\,50 \\ \hline 45 \\ -\,45 \\ \hline 0 \end{array}$$

There are 5 buses of students on the field trip.

Lesson 19

Sprint

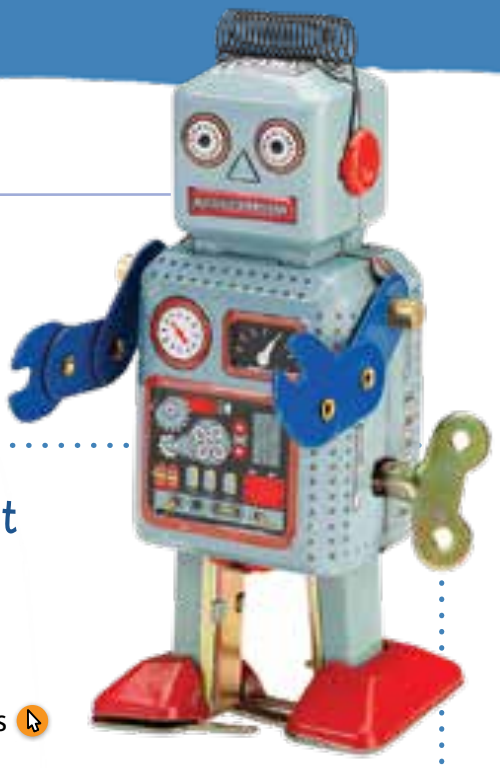
Side A

1.	20	12.	60	23.	660	34.	42
2.	120	13.	130	24.	6,600	35.	420
3.	1,200	14.	26	25.	240	36.	4,200
4.	40	15.	260	26.	480	37.	1,640
5.	340	16.	1,300	27.	2,400	38.	4,500
6.	3,400	17.	2,600	28.	4,800	39.	42,600
7.	70	18.	8	29.	690	40.	720
8.	270	19.	88	30.	6,900	41.	2,250
9.	2,700	20.	880	31.	142	42.	25,200
10.	30	21.	8,800	32.	1,420	43.	5,220
11.	6	22.	66	33.	28	44.	63,200

Side B

1.	30	12.	80	23.	880	34.	52
2.	130	13.	140	24.	8,800	35.	520
3.	1,300	14.	28	25.	420	36.	5,200
4.	50	15.	280	26.	840	37.	2,160
5.	350	16.	1,400	27.	4,200	38.	4,500
6.	3,500	17.	2,800	28.	8,400	39.	48,600
7.	80	18.	6	29.	960	40.	640
8.	280	19.	66	30.	9,600	41.	1,950
9.	2,800	20.	660	31.	162	42.	14,400
10.	40	21.	6,600	32.	1,620	43.	5,340
11.	8	22.	88	33.	39	44.	60,800

Develop Estimating Quotients



Read and try to solve the problem below.

A toy company packs 504 robots into 21 boxes. Each box has the same number of robots. Show how you could estimate the number of robots in each box.

TRY IT

Possible student work:

Sample A

504 ÷ 21 = ? means 21 × ? = 504
21 × 10 = 210
21 × 20 = 420
← 21 × ? = 504, so 504 ÷ 21 is between 20 and 30.
21 × 30 = 630
The toy company packed about 25 robots in each box.

Sample B

500 and 20 are close to 504 and 21.
50 ÷ 2 = 25
25 × 2 = 50
25 × 20 = 500
There are about 25 robots in a box.

Math Toolkit

- base-ten blocks
- base-ten grid paper
- grid paper
- index cards
- multiplication models

DISCUSS IT

Ask your partner: How did you get started?

Tell your partner:
I knew . . . so I . . .

Explore different ways to understand how to estimate quotients when dividing whole numbers.

A toy company packs 504 robots into 21 boxes. Each box has the same number of robots. Show how you could estimate the number of robots in each box.

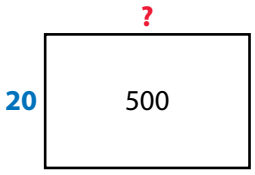
MODEL IT

You can use compatible numbers to estimate a quotient.

Compatible numbers are numbers close to the values of the actual dividend and divisor that allow you to multiply or divide using basic facts.

500 and 20 are compatible numbers that are close to 504 and 21.

You can use them to estimate by thinking 500 ÷ **20** = **?** means **20** × **?** = 500.



MODEL IT

You can use the inverse relationship between multiplication and division to estimate a quotient.

504 ÷ **21** = **?** or **21** × **?** = 504

Multiply **21** by **multiples of 10**. Make a table.

Number of Robots per Box	Total Number of Robots
10	**21** × **10** = 210
20	**21** × **20** = 420
30	**21** × **30** = 630

CONNECT IT

Now you will use the problem from the previous page to help you understand how to estimate quotients with two-digit divisors.

1. Look at the first **Model It**. Why are 500 and 20 good choices to use for compatible numbers? Why not round to the nearest thousand and use 1,000 and 20 as compatible numbers?

   Possible answer: You want to choose numbers close to the dividend and divisor so that the estimated quotient is close to the actual quotient.

2. How can you find the quotient 500 ÷ 20? What estimate does this give for the number of robots in each box?

   Possible answer: I know 50 ÷ 2 = 25 and 2 × 25 = 50, so I can use that to see that 20 × 25 = 500, or 500 ÷ 20 = 25. There are about 25 robots in each box.

3. Look at the second **Model It**. Why do you multiply 21 by multiples of 10? Could you multiply 21 by multiples of 5 instead of by multiples of 10?

   Possible answer: Multiples of 10 have only one nonzero digit to think about. You could use multiples of 5, but it's not easy to multiply 21 by 15 in your head.

4. Look at the table. Between which two numbers is a good estimate for the number of robots packed in each box? Explain how you know.

   Possible answer: The number of robots packed in each box is between 20 and 30. 21 × 20 = 420, so 420 ÷ 21 = 20. 21 × 30 = 630, so 630 ÷ 21 = 30. 504 is between 420 and 630, so 504 ÷ 21 is between 20 and 30.

5. What do the methods of estimating quotients in the **Model Its** have in common?

   Possible answer: Both methods use easier numbers to help you estimate.

6 REFLECT

Look back at your **Try It**, strategies by classmates, and **Model Its**. Which models or strategies do you like best for estimating quotients? Explain.

Possible answer: Some students may prefer estimating with compatible numbers because it requires only one calculation to find the estimate. Others may prefer using multiples of 10 because they are easy to multiply by.

APPLY IT

Use what you just learned to solve these problems.

7 Estimate the quotient 342 ÷ 38. Show your work.

Possible student work:
342 is close to 350.
38 is close to 35.
10 × 35 = 350, so 350 ÷ 35 = 10.

Solution **342 ÷ 38 is close to 10.**

8 Estimate the quotient 1,103 ÷ 23. Show your work.

Possible student work:

Multiple of 10	10	20	30	40	50
23 × Multiple of 10	230	460	690	920	1,150

Solution **between 40 and 50**

9 Camille arranged 238 chairs into equal rows of 14 chairs. Which of the following is the best estimate for the number of rows she made?

Ⓐ a number close to 30

Ⓑ about 20

Ⓒ a number between 30 and 40

Ⓓ about 10

Practice Estimating Quotients

Study the Example showing how to estimate a quotient with a two-digit divisor. Then solve problems 1–4.

EXAMPLE

Estimate the quotient 1,474 ÷ 22.

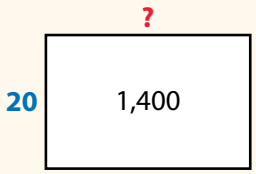
Choose compatible numbers that are close to the actual dividend and divisor and easy to multiply and divide using a basic fact.

1,400 and 20 are close to 1,474 and 22.

$2 \times 7 = 14$, $2 \times 70 = 140$, and $20 \times 70 = 1{,}400$.

$20 \times 70 = 1{,}400$ is the same as $1{,}400 \div 20 = 70$.

So, 70 is the estimated quotient for 1,474 ÷ 22.



1 Look at the Example. You can also multiply 22 by **multiples of 10** to estimate the quotient 1,474 ÷ 22.

a. Complete the table.

Multiple of 10	10	20	30	40	50	60	70	80
22 × Multiple of 10	220	440	660	880	1,100	1,320	1,540	1,760

b. Complete the statement below with two numbers from the table.

The dividend 1,474 is between 1,320 and 1,540.

c. What is a good estimate for the quotient 1,474 ÷ 22?

Possible answer: A number between 60 and 70; 1,474 is between 1,320 and 1,540; so, the quotient will be between 60 and 70; because 1,474 is closer to 1,540 than to 1,320, the quotient is closer to 70 than 60.

2 Which of the following is the best estimate for the quotient 713 ÷ 31?

Ⓐ a number between 10 and 20

Ⓑ a number close to 40

Ⓒ a number close to 35

Ⓓ a number between 20 and 30

3 A beverage company makes 1,008 bottles of water and packs them into boxes. The company packs 24 bottles in each box. Estimate how many boxes of water bottles the company packs. Show your work.

Possible student work:
1,008 is about 1,000. 24 is about 25.

25 × 4 = 100 and 25 × 40 = 1,000.

Solution **Possible answer: about 40 boxes of water bottles**

4 Marcus builds 2,744 kites for a 14-day summer kite festival.
He plans to give away about the same number of kites each day.
He gives away 492 kites the first two days. Did Marcus stick to his plan?
Use estimation to explain. Show your work.

2,744 is about 2,800.
14 × 2 = 28, 14 × 20 = 280, and 14 × 200 = 2,800.

492 is about 500. 500 ÷ 2 = 250

Solution **Marcus did not stick to his plan. Possible explanation: Marcus should have given away about 200 kites a day. On the first two days, he gave away about 250 kites a day.**

Lesson 21

Sprint

Side A

1. 3
2. 43
3. 430
4. 43
5. 430
6. 5
7. 85
8. 850
9. 85
10. 850
11. 60
12. 20
13. 20
14. 40
15. 20
16. 20
17. 24
18. 12
19. 12
20. 36
21. 12
22. 12
23. 120
24. 12
25. 2,100
26. 210
27. 21
28. 4,200
29. 420
30. 42
31. 32,000
32. 320
33. 3,200
34. 30
35. 40
36. 43
37. 6
38. 40
39. 60
40. 64
41. 32
42. 23
43. 240
44. 42

Develop Using Estimation and Area Models to Divide

Read and try to solve the problem below.

A factory produces 768 buses and puts them in 24 buildings. Each building has the same number of buses. How many buses are in each building? Estimate and then solve.

TRY IT

Possible student work:

Sample A

24 × 10 = 240
24 × 20 = 480
24 × 30 = 720
24 × 40 = 960
The quotient is between 30 and 40.
24 × 30 = 720, 768 − 720 = 48
24 × 2 = 48
30 + 2 = 32
32 buses are in each building.

Sample B

750 and 25 are close to 768 and 24.
25 × 30 = 750, so 768 ÷ 24 is about 30.

$$\begin{array}{rl} 768 & \\ -\ 720 & (24 \times 30) \\ \hline 48 & \\ -\ 48 & (24 \times 2) \\ \hline 0 & \end{array}$$

24 × 32 = 768, so 768 ÷ 24 = 32.
Each building has 32 buses.

Math Toolkit

- base-ten blocks
- base-ten grid paper
- grid paper
- index cards
- multiplication models

DISCUSS IT

Ask your partner: Do you agree with me? Why or why not?

Tell your partner: I agree with you about . . . because . . .

Explore different ways to understand how to divide multi-digit numbers using estimation and area models.

A factory produces 768 buses and puts them in 24 buildings. Each building has the same number of buses. How many buses are in each building? Estimate and then solve.

MODEL IT

You can use the relationship between multiplication and division to estimate the quotient.

768 ÷ 24 = **?** and 24 × **?** = 768

Multiply 24 by **multiples of 10** to estimate the quotient. You can organize your work in a table.

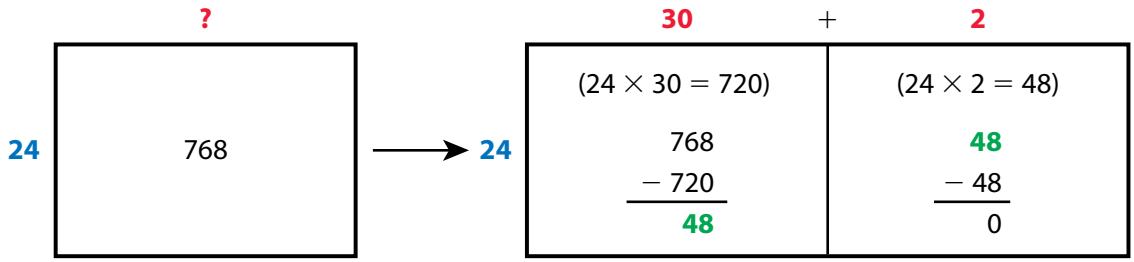
Number of Buses in Each Building	Total Number of Buses
10	240
20	480
30	720
40	960

The quotient is between **30** and **40**.

MODEL IT

You can use an area model to solve a division problem with a two-digit divisor.

The area model breaks up the problem 768 ÷ 24 into parts.



CONNECT IT

Now you will use the problem from the previous page to help you understand how to divide multi-digit numbers using estimation and area models.

1. In the first **Model It**, how do you know the quotient is between 30 and 40?

   768 is between 720 and 960.

2. Look at the second **Model It**. The number 24 is multiplied by which estimate, 30 or 40, to start the area model work? Why do you think the other number was not used?

   30; Possible explanation: The quotient is between 30 and 40. If you multiply 24 by 40, you get 960. 960 is greater than the dividend, 768, so 40 is too big to be part of the quotient.

3. What does the expression 30 + 2 above the area model represent?

   Possible answer: 30 and 2 are numbers of buses in each of the 24 buildings. 30 + 2 is the quotient, 32, the total number of buses in each building.

4. Explain why the numbers 30 and 2 can be called *partial quotients*.

   Possible answer: Each one is a quotient of a division problem related to 768 ÷ 24 and is a part of the whole quotient.

5. Explain how an area model can help you break apart a division problem to make it easier to solve.

   Possible answer: The first rectangle shows the number you are dividing into equal groups as the product of the divisor and the unknown quotient. You can split the problem into easier multiplication problems, with the divisor as one factor. In each section, you subtract the product you found in that section from what remains. You keep going until you reach a number less than the divisor.

6 REFLECT

Look back at your **Try It**, strategies by classmates, and **Model Its**. Which models or strategies do you like best for dividing whole numbers? Explain.

Student responses may mention that the area model strategy helps you visualize the division, and it shows how multiplication can be used to help you divide. The area model also breaks down the problem into smaller parts.

APPLY IT

Use what you just learned to solve these problems.

7 In the problem on the previous page, 768 ÷ 24, you first estimated and then used an area model to find the quotient. Describe how can you use multiplication to check that you have the correct quotient.

You multiply 32 by 24 to see if it equals 768. If it does, then the quotient is correct.

Show your work for the check.

Possible student work:

$$24 \times 32 = (24 \times 30) + (24 \times 2)$$
$$= 720 + 48$$
$$= 768$$

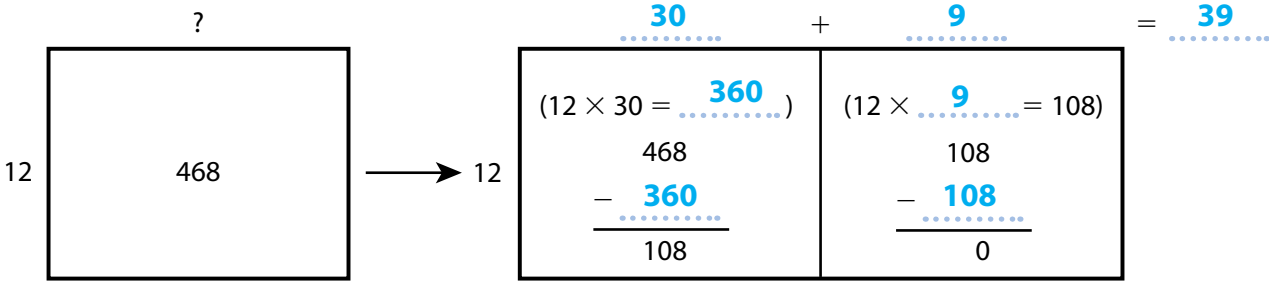
The answer checks. The quotient is correct.

8 Dante has 468 cards in his sports card collection. He buys cards in packages of 12. Complete the table and give an estimate for how many packages of cards Dante has bought.

Number of packages	10	20	30	40	50
Number of sports cards	120	240	360	480	500

Solution **between 30 and 40 packages**

9 Refer to the situation in problem 8. Complete the area model to find the quotient 468 ÷ 12. How many packages of sports cards did Dante buy?



Solution **468 ÷ 12 = 39; He bought 39 packages.**

Practice Using Estimation and Area Models to Divide

Study the Example showing how to estimate and use area models to divide. Then solve problems 1–4.

EXAMPLE

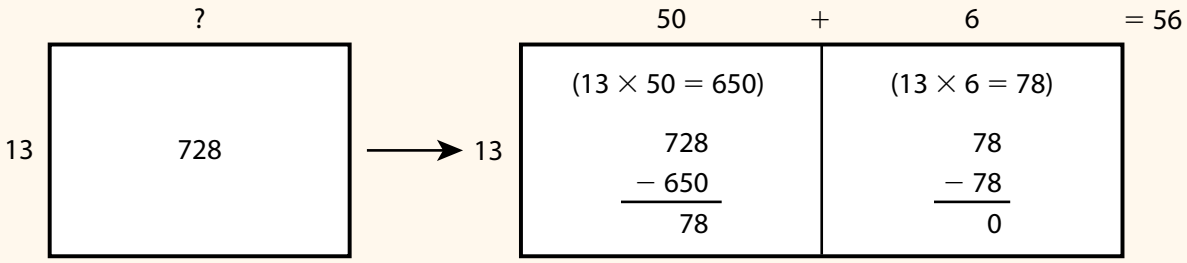
A donut shop sells donuts in boxes that each contain 13 donuts.
If 728 donuts were sold in one day, how many boxes of donuts were sold?

Multiply 13 by multiples of 10 to help you estimate the quotient. Make a table.

Number of boxes	10	20	30	40	50	60
Number of donuts	130	260	390	520	650	780

Because 728 is between 650 and 780, the quotient is between 50 and 60.

Use 50 as the first partial quotient in an area model for 728 ÷ 13.



728 ÷ 13 = 56. The donut shop sold 56 boxes of donuts.

1 The area model in the Example shows how to break apart the problem 728 ÷ 13 into parts.

a. What was 13 multiplied by first? 50

b. What equation in the area model shows this? 13 × 50 = 650

c. Why do you subtract 650 from 728?

Possible answer: to find the number left to be sorted into groups of 13

d. What is the second partial quotient? 6

2 The table can be used to estimate the quotient 851 ÷ 37. Which of the following is the best estimate of the quotient?

Multiple of 10	10	20	30	40
37 × Multiple of 10	370	740	1,110	1,480

Ⓐ a number between 30 and 40

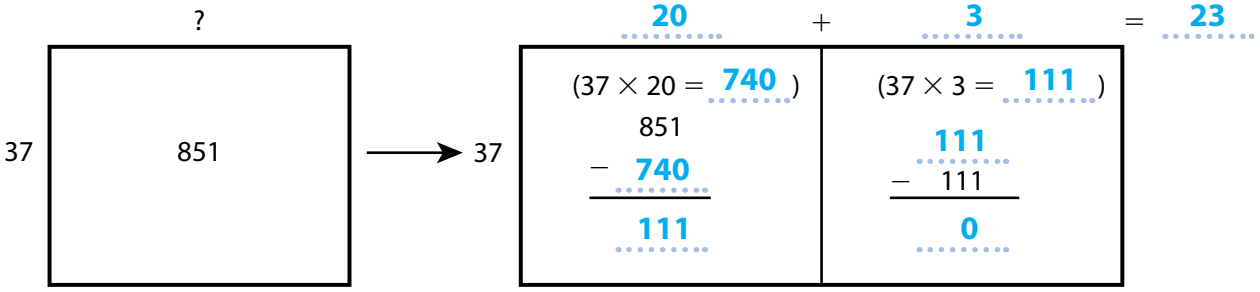
Ⓑ about 15

Ⓒ a number between 20 and 30

Ⓓ about 42

3 Complete the steps for using an area model to find the quotient 851 ÷ 37.

851 ÷ 37 is the same as 37 × ? = 851.



851 ÷ 37 = 23

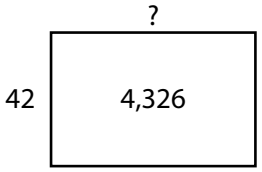
4 Which of the following equations cannot be used to represent the area model?

Ⓐ 42 × ? = 4,326

Ⓑ 42 + 4,326 = ?

Ⓒ 4,326 ÷ ? = 42

Ⓓ 4,326 ÷ 42 = ?



Lesson 21

Sprint

Side B

1.	2	12.	30	23.	210	34.	20
2.	42	13.	30	24.	21	35.	30
3.	420	14.	60	25.	1,200	36.	32
4.	42	15.	30	26.	120	37.	4
5.	420	16.	30	27.	12	38.	40
6.	4	17.	24	28.	2,400	39.	70
7.	84	18.	12	29.	240	40.	73
8.	840	19.	12	30.	24	41.	32
9.	84	20.	63	31.	23,000	42.	23
10.	840	21.	21	32.	230	43.	240
11.	90	22.	21	33.	2,300	44.	42

4.NBT Mental Division Strategy

Alignments to Content Standards: 4.NBT.B.6

Task

Jillian says

I know that 20 times 7 is 140 and if I take away 2 sevens that leaves 126. So 126 ÷ 7 = 18.

a. Is Jillian's calculation correct? Explain.

b. Draw a picture showing Jillian's reasoning.

c. Use Jillian's method to find 222 ÷ 6.

IM Commentary

This task would be ideal to help students develop mental strategies to think about division during instruction. Jillian's strategy is often referred to as using "compatible numbers." Jillian is using a relationship that she can easily find: 140 divided by 7 is 20 or 20 sets of 7 is 140. The numbers 140 and 7 are often called "compatible" because 14 is a multiple of 7 so Jillian could strategically use this fact to reason through her problem. This task could also be extended to ask students for other mental math strategies to find 126 divided by 7. Students might reason that 10 sets of 7 is 70 and 8 sets of 7 is 56. Since 70 + 56 is 126, there are 18 sets of 7 in the number 126.

Center Activity 4.25 ★★

Dividing by One-Digit Numbers

Check Understanding

What is the quotient?

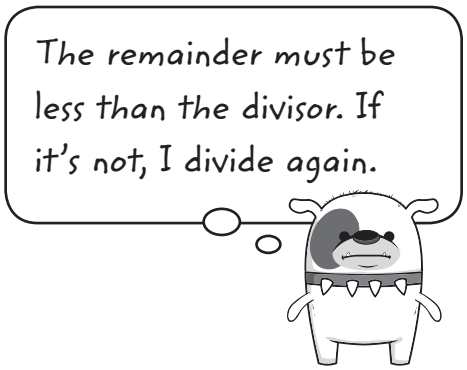
3,265 ÷ 4 = _____

What You Need

- 6 game markers in one color
- 6 game markers in a different color
- Recording Sheet and Game Board

What You Do

1. Take turns. Pick a problem on the **Recording Sheet.**
2. Divide. Write the quotient including the remainder.
3. Your partner uses multiplication to check the answer.
4. If your answer is correct, cover the remainder on the **Game Board** with your game marker. If it is incorrect, your turn ends.
5. Continue until all problems have been solved. The player with the greater number of game markers on the **Game Board** wins.



Go Further!

On a separate sheet of paper, rewrite the dividend of the problem 342 ÷ 5 so there is a remainder of 5. Use multiplication and addition to check your answer. Exchange papers with your partner to check.

Center Activity 4.25 ★★ **Recording Sheet and Game Board**

Partner A _____

Partner B _____

Dividing by One-Digit Numbers

342 ÷ 5 = _____	2,176 ÷ 6 = _____	388 ÷ 3 = _____
4,632 ÷ 9 = _____	735 ÷ 8 = _____	5,178 ÷ 7 = _____
638 ÷ 2 = _____	4,519 ÷ 4 = _____	242 ÷ 9 = _____

3	**6**	**0**
7	**2**	**1**
5	**8**	**4**

Center Activity Answer Key
Activity 4.25

Dividing by One-Digit Numbers

Recording Sheet

Row 1: 68 R 2; 362 R 4; 129 R 1

Row 2: 514 R 6; 91 R 7; 739 R 5

Row 3: 319; 1,129 R 3; 26 R 8

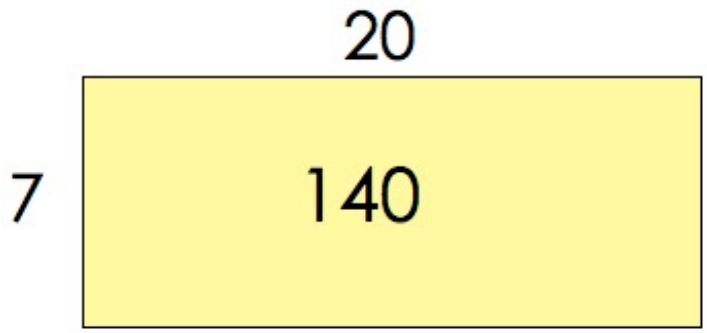
Solution

a. Jillian's reasoning is correct. She has found $20 \times 7 = 140$ and $2 \times 7 = 14$. This means that

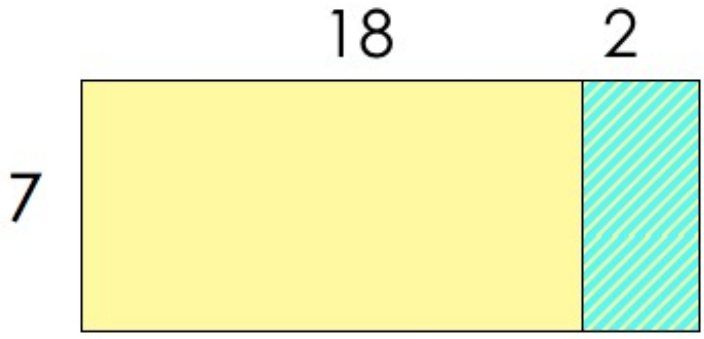
$$\begin{aligned} 18 \times 7 &= (20 - 2) \times 7 \\ &= (20 \times 7) - (2 \times 7) \\ &= 140 - 14 \\ &= 126. \end{aligned}$$

The second equality uses the distributive property. These equations tell us that 126 ÷ 7 = 18.

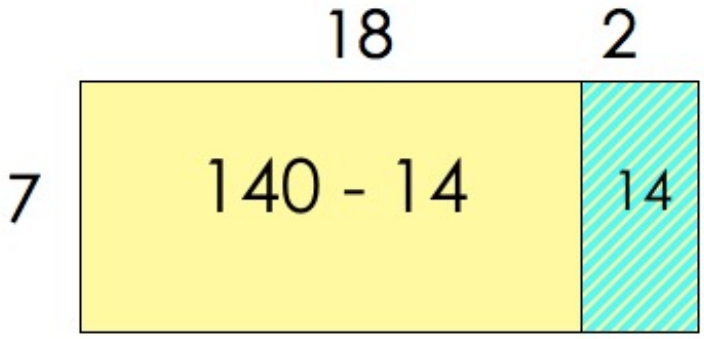
b. Jillian's initial idea of dividing 140 by 7 is represented here:



From there, Jillian decomposes the 20 sevens into 18 sevens and 2 sevens:



Lastly, Jillian recognizes that if the area of both rectangles combined would be 140, then she must subtract off the 2 extra sevens she used to get 140:



c. We have $40 \times 6 = 240$ and $3 \times 6 = 18$. So

$$\begin{aligned} 37 \times 6 &= (40 - 3) \times 6 \\ &= (40 \times 6) - (3 \times 6) \\ &= 240 - 18 \\ &= 222. \end{aligned}$$

The second line uses the distributive property of multiplication.

Guidance for Experiential Learning Assignments - Science
Grade 5

Overview

- Your child will engage in activities to help them learn about weather and climate
    - Each lesson will begin with discussion questions to get students thinking about what they already know.
    - There will be activities that require students to observe, collect data and/or analyze experiences about the world around them.
    - Videos, charts, tables and photos are provided to help students use the science and engineering practices.
- Your child can talk about what they are learning, use drawings and write down answers or all of these modes. Because these lessons build on each other, it is important that your child writes or draws in their notebook as well as communicate their ideas verbally.
- Your child should have a notebook for science assignments
- Review the assignment materials in advance
- Review each assignment with your child before they begin. Allow them to ask for help if and when needed

Assignment #4

A. **Weather versus Climate** – Indicate whether each statement below is about **weather** or **climate** (answers in parentheses)
    a. Winter is usually the coldest time of year (climate)
    b. It is raining and 73°F outside (weather)
    c. The sky is cloudy and it looks like it might rain (weather)
    d. Our location gets about the same amount of precipitation each year (climate)
    e. August is usually the hottest month of the year (climate)
    f. It was very cold and windy outside this morning (weather)

C. Please make time to talk with your child about developing a severe weather plan using the resources included in their assignment material.