Fifth Grade
Answer Key
Unit 3: Division

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for navigation

Problem of the Day

Lesson 1
Complete each multiplication equation.

$0.3 \times \underline{\textbf{10}} = 3$

$0.03 \times \underline{\textbf{10}} = 0.3$

$0.003 \times \underline{\textbf{10}} = 0.03$

Lesson 2
Complete each equation.

$9 \times \underline{\textbf{6}} = 54$

$9 \times \underline{\textbf{60}} = 540$

$9 \times \underline{\textbf{600}} = 5,400$

Lesson 3
Which expression would you use to help estimate the solution to $480 \div 7$?
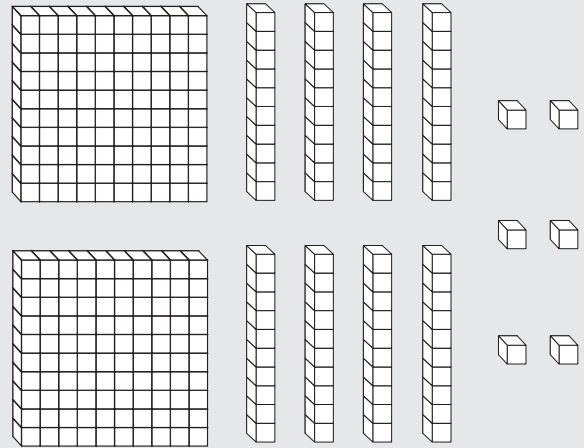
A. $490 \div 7$
B. $500 \div 10$
C. $450 \div 5$
D. $500 \div 5$

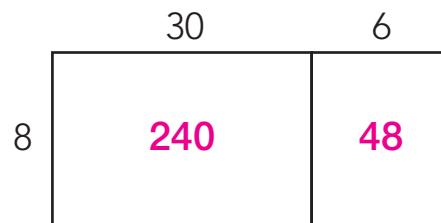Explain your choice.

Lesson 4
Grace has the Base Ten Blocks shown. She divides them into two equal groups. Show how many blocks would be in each group.

143

Lesson 5
Complete the area model.

	30	6
8	**240**	**48**

288

Problem of the Day

Lesson 6

Which expression would you use to help estimate the solution to 74 ÷ 23?

A. 70 ÷ 20

B. 80 ÷ 20

C. 75 ÷ 25

D. 100 ÷ 20

Explain your choice.

Lesson 7

Complete the equation.

$427 = (\underline{\quad 42 \quad} \times 10) + (\underline{\quad 7 \quad} \times 1)$

Lesson 8

Find each quotient.

$6{,}000 \div 20 = \underline{\quad 300 \quad}$

$800 \div 20 = \underline{\quad 40 \quad}$

$40 \div 20 = \underline{\quad 2 \quad}$

Lesson 9

Fiona baked 50 cookies for the school bake sale. She is creating packages of cookies with 4 cookies in each package. How many packages of cookies will she be able to make? Explain.

12 packages of cookies

Lesson 10

Complete the strip diagram.

400				
80	80	80	80	80

Problem of the Day

Lesson 11

Without dividing, sort the expressions to show which quotients will have a remainder and which will not.
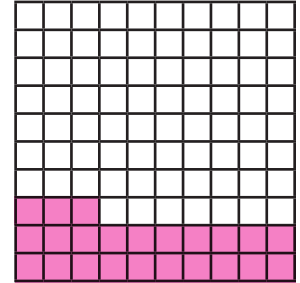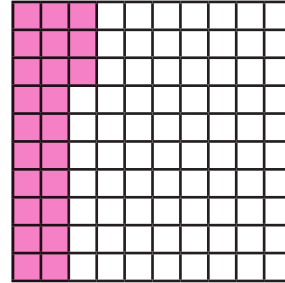
| 120 ÷ 5 | 48 ÷ 2 | 381 ÷ 10 |

| 67 ÷ 2 | 258 ÷ 5 | 4,270 ÷ 10 |

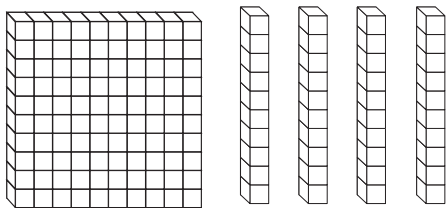**Expressions highlighted will NOT have a remainder:**

Lesson 13

Antonio shaded a hundredths grid to show 0.24. Show two different ways that Antonio could have shaded the model.
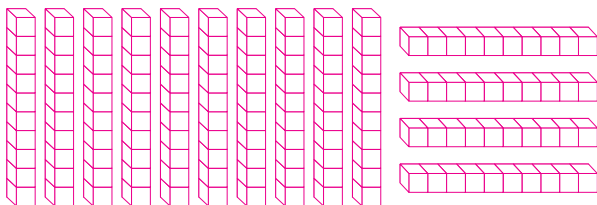

Lesson 12

The model shows the number 1.4.

How could you show 1.4 using only rods?

Lesson 14

Lucy has $0.51. She wants to buy some cherries. Each cherry costs 4 cents. About how many cherries can she buy? Explain how you found your answer.

Sample answer: Lucy can buy 12 cherries. I found my answer by dividing 0.51 by 0.4.

Lesson 15

A fifth-grade class collected dimes in a fundraiser. In all, they collected $26.30. How many dimes did they collect?
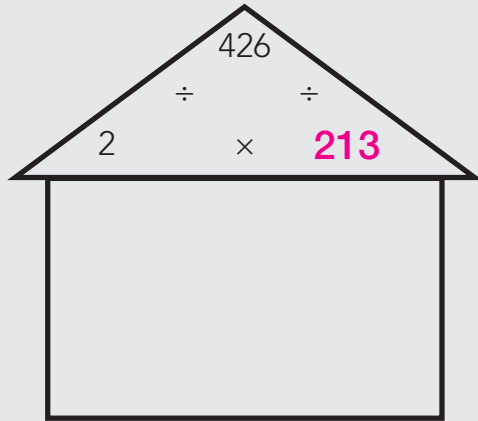
A. 263
B. 2,630
C. 26,300
D. 263,000

Problem of the Day

Lesson 16

Find the quotient.

```
        426
     ÷        ÷
  2        ×      213
```

Lesson 18

Complete each equation.

11 × ___**8**___ = 88

80 × ___**30**___ = 2,400

12 × ___**40**___ = 480

Lesson 17

Gumballs cost 1 quarter. Complete the chart to show how many gumballs can be purchased for each amount of money.

Amount of Money	Number of Gumballs
$1.00	**4**
$2.00	**8**
$5.00	**20**
$5.50	**21**
$10.00	**40**

Lesson 19
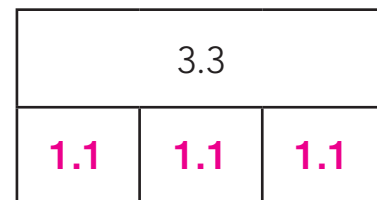
Use the multiplication problem 0.6 × 2 = 1.2 to create two related division problems.

2 ÷ 1.2 = 0.6
2 ÷ 0.6 = 1.2

Lesson 20

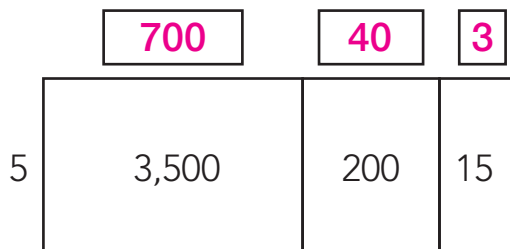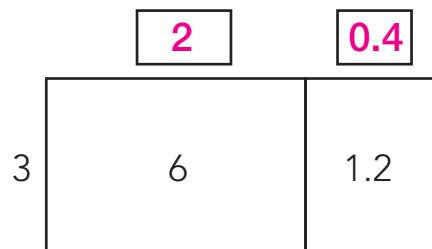Complete the strip diagram.

3.3		
1.1	**1.1**	**1.1**

Pre-Assessment

Complete the area models.

1.

	700	40	3
5	3,500	200	15

2.

	2	0.4
3	6	1.2

Complete the patterns.

3. $15 \div 3 =$ ___**5**___

$150 \div 3 =$ ___**50**___

$1,500 \div 3 =$ ___**500**___

4. $48 \div 4 =$ ___**12**___

$480 \div 4 =$ ___**120**___

$4,800 \div 4 =$ ___**1,200**___

Divide. Show your work.

5. $416 \div 8 =$ ___**52**___

6. $1,035 \div 45 =$ ___**23**___

7. $1.8 \div 9 =$ ___**0.2**___

8. $0.72 \div 0.08 =$ ___**9**___

9. A school received a shipment of 1,008 rulers. If the rulers are divided evenly among 36 classrooms, how many rulers will be given to each classroom?

28 rulers

10. A board that is 0.84 meter long is divided into 2 equal pieces. How long is each piece?

0.42 meter

Dividing Whole Numbers Quiz

Complete the patterns.

1. $25 \div 5 =$ __**5**__

$250 \div 5 =$ __**50**__

$2{,}500 \div 5 =$ __**500**__

2. $44 \div 22 =$ __**2**__

$440 \div 22 =$ __**20**__

$4{,}400 \div 22 =$ __**220**__

Divide. Use an area model or partial quotients. Show your work.

3. $5{,}216 \div 8 =$ __**652**__

4. $448 \div 16 =$ __**28**__

Use compatible numbers to estimate the solution. Show your work.

5. $4{,}600 \div 50$

~90

6. $410 \div 6$

~70

Divide using the standard algorithm. Show your work.

7. $4{,}536 \div 6 =$ __**756**__

8. $3{,}926 \div 12 =$ **327 r16**

9. A total of 22 people can ride a roller coaster in one trip. There are 1,170 people in line for the roller coaster. How many trips would the roller coaster need to take for all of the people in line to ride?

54 trips

10. A roll of tape is 2,163 inches long. How many 18-inch pieces of tape can be cut from the roll?

120 pieces of tape

Dividing Decimals Quiz

Divide.

1. $0.8 \div 2 =$ ___**0.4**___

2. $3.5 \div 5 =$ ___**0.7**___

3. $0.32 \div 8 =$ ___**0.04**___

4. $0.27 \div 3 =$ ___**0.09**___

Use compatible numbers to estimate each solution. Show your work.

5. $3.8 \div 4$
   ~1

6. $0.73 \div 0.08$
   ~9

Divide using the standard algorithm. Show your work.

7. $0.504 \div 0.8 =$ ___**0.63**___

8. $21.84 \div 0.7 =$ ___**31.2**___

9. The cost of a package of 8 hamburger buns is $2.16. What is the price for each bun?
   $0.27

10. A bag of metal beads weighs 4.8 ounces. Each bead weighs 0.04 ounce. How many beads are in the bag?
   120 beads

Assessment

Complete the patterns.

1. $42 \div 7 =$ __**6**__

$420 \div 7 =$ __**60**__

$4{,}200 \div 7 =$ __**600**__

2. $33 \div 3 =$ __**11**__

$330 \div 3 =$ __**110**__

$3{,}300 \div 3 =$ __**1,100**__

3. $24 \div 12 =$ __**2**__

$240 \div 12 =$ __**20**__

$2{,}400 \div 12 =$ __**200**__

Use compatible numbers to estimate each solution. Show your work.

4. $649 \div 8$ **~80**

5. $7513 \div 24$ **~300**

6. $12.3 \div 6$ **~2**

7. $0.91 \div 3$ **~0.3**

Divide. Show your work.

8. $9{,}546 \div 3 =$ __**3,182**__

9. $1{,}872 \div 8 =$ __**234**__

10. $3{,}198 \div 26 =$ __**123**__

11. $1{,}458 \div 27 =$ __**54**__

12. $5{,}623 \div 24 =$ **234 r29**

13. $0.6 \div 3 =$ __**0.2**__

14. $3.6 \div 6 =$ __0.6__

15. $0.21 \div 7 =$ __0.03__

16. $0.64 \div 0.32 =$ __2__

17. $3.42 \div 0.3 =$ __11.4__

18. A school spent $6,519 on 123 fifth-grade math books. What was the cost of each book?

$54 for one book

19. Alicia paid $14.88 for 6 pints of strawberries. What was the cost of each pint?

$2.48 for one pint

20. Malik walks from his home to and from school each day. In 4 days, he walked a total of 4.8 miles. How far is Malik's home from the school?

0.6 miles

$$4{,}800 \div 8 = \underline{\quad 600 \quad}$$

Use the Pattern Cards

$$2{,}700 \div 9 = \underline{300}$$

Use the Pattern Cards

$$5,400 \div 6 = \underline{\quad 900 \quad}$$

Use the Pattern Cards

$$280 \div 4 = \underline{70}$$

$$1{,}600 \div 4 = \underline{\hspace{1em}400\hspace{1em}}$$

Use the Pattern Cards

$$350 \div 7 = \underline{}$$

50

Use the Pattern Cards

4,200 ÷ 6 = _____700_____

$$210 \div 3 = \underline{\quad 70 \quad}$$

Use the Pattern Cards

$$450 \div 9 = \underline{\quad 50 \quad}$$

Use the Pattern Cards

$$6{,}300 \div 7 = \underline{900}$$

Use the Pattern Cards

$$3{,}200 \div 4 = \underline{\quad 800 \quad}$$

Use the Pattern Cards

$$440 \div 11 = \underline{\quad 40 \quad}$$

Use the Pattern Cards

6,579 ÷ 8

Multiplication Fact

_8_ × 822 r38 = 6,579

Compatible Numbers

6,400 ÷ _8_

Estimated Quotient

800

1,422 ÷ 5

Multiplication Fact

_5_ × _280 r4_ = 1,422

Compatible Numbers

1,400 ÷ _5_

Estimated Quotient

280

Estimate the Quotient Cards

2,916 ÷ 3

Multiplication Fact

__3__ × __972__ = 2,916

Compatible Numbers

3,000 ÷ __3__

Estimated Quotient

1,000

$8,043 \div 9$

Multiplication Fact

__9__ × __893 r67__ = 8,043

Compatible Numbers

8,100 ÷ __9__

Estimated Quotient

__900__

$4,687 \div 7$

Multiplication Fact

$\underline{\quad 7 \quad} \times \underline{\begin{array}{c} 669 \\ \text{r57} \end{array}} = \underline{4{,}687}$

Compatible Numbers

$\underline{4900} \div \underline{\quad 7 \quad}$

Estimated Quotient

$\underline{700}$

Estimate the Quotient Cards

3,365 ÷ 4

Multiplication Fact

___4___ × __841 r25__ = 3,365

Compatible Numbers

3,200 ÷ ___4___

Estimated Quotient

800

1,588 ÷ 8

Multiplication Fact

_8_ × _198 r5_ = 1,588

Compatible Numbers

1,600 ÷ _8_

Estimated Quotient

200

1,740 ÷ 2

Multiplication Fact

__2__ × __870__ = __1,740__

Compatible Numbers

__1,700__ ÷ __2__

Estimated Quotient

__850__

2,650 ÷ 3

Multiplication Fact

___3___ × __883 r3__ = __2,650__

Compatible Numbers

__2,700__ ÷ ___3___

Estimated Quotient

__900__

$$5,012 \div 6$$

Multiplication Fact

$$\underline{6} \times \underset{\text{r33}}{\overset{835}{\underline{}}} = \underline{5,012}$$

Compatible Numbers

$$\underline{4,800} \div \underline{6}$$

Estimated Quotient

$$\underline{800}$$

Estimate the Quotient Cards

5,312 ÷ 7

Multiplication Fact

__7__ × __758 r86__ = **5,312**

Compatible Numbers

5,600 ÷ __7__

Estimated Quotient

__800__

3,190 ÷ 5

Multiplication Fact

_5_ × _638_ = _3,190_

Compatible Numbers

_3,200_ ÷ _5_

Estimated Quotient

_640_

3,210 ÷ 5

642

1,288 ÷ 7

184

$$1,962 \div 3$$

654

Dividing by One-Digit Cards

$$5,064 \div 6$$

844

Dividing by One-Digit Cards

$$6,768 \div 9$$

752

Dividing by One-Digit Cards

6,272 ÷ 8

784

1,086 ÷ 2

543

3,008 ÷ 4

752

Dividing by One-Digit Cards

$$7,720 \div 8$$

965

$$3{,}066 \div 7$$

438

3,496 ÷ 4

874

1,170 ÷ 5

234

$$5,419 \div 8$$

677 r38

Dividing by One-Digit Cards

8,542 ÷ 4

2,135 r5

6,325 ÷ 8

790 r63

5,576 ÷ 5

1,115 r2

$$2,025 \div 6$$

337 r5

Dividing by One-Digit Cards

3,216 ÷ 5

643 r2

Dividing by One-Digit Cards

What is the greatest number of groups of 21 you can make from 113?

5 groups

What is the greatest number of groups of 19 you can make from 159?

8 groups

What is the greatest number of groups of 46 you can make from 345?

7 groups

What is the greatest number of groups of 25 you can make from 105?

4 groups

What is the greatest number of groups of 34 you can make from 83?

2 groups

What is the greatest number of groups of 59 you can make from 84?

1 group

What is the greatest number of groups of 13 you can make from 52?

4 groups

What is the greatest number of groups of 78 you can make from 327?

4 groups

What is the greatest number of groups of 63 you can make from 529?

88 groups

What is the greatest number of groups of 65 you can make from 546?

8 groups

What is the greatest number of groups of 27 you can make from 86?

3 groups

What is the greatest number of groups of 22 you can make from 64?

2 groups

1,130 ÷ 21

53 r81

1,596 ÷ 19

84

3,458 ÷ 46

75 r17

1,050 ÷ 25

42

Dividing by Two-Digit Cards

830 ÷ 34

24 r41

Dividing by Two-Digit Cards

8,480 ÷ 59

143 r73

520 ÷ 13

40

3,276 ÷ 78

42

5,292 ÷ 63

84

Dividing by Two-Digit Cards

5,465 ÷ 65

84 r1

864 ÷ 27

32

Dividing by Two-Digit Cards

6,402 ÷ 22

291

Nathan earns $624 in one year for walking his neighbor's dog. He is paid the same amount each week. There are 52 weeks in one year. How much is Nathan paid each week?

$12 each week

Adi read for 2,100 minutes in the month of September. How many hours did Adi read? (There are 60 minutes in 1 hour.)

35 hours

The school play earned $3,192 from ticket sales. The cost of each ticket was $7. How many tickets were sold?

456 tickets

The 5th grade class took a train ride. The cost for each student was $13. If the total cost of the students' tickets was $2,418, how many students rode the train?

186 students

A group of students measured the length of the school cafeteria in inches. The length was 1,044 inches. There are 36 inches in 1 yard. How many yards long is the cafeteria?

29 yards

Karina's family wants to save $10,000 for a used car. Each week they put $150 in an account to save for the car. How many weeks will it take to save $10,000?

67 weeks

A ferry can transport 54 people at a time. How many trips would the ferry need to take to transport 2,308 people?

43 trips

For Field Day, students are being put on teams of 14 each. If there are 827 students in the school, how many teams will there be?

60 teams

$0.8 \div 2$

0.4

$$0.6 \div 3$$

0.2

Dividing Tenths Cards, Set 1

$$0.9 \div 3$$

0.3

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Dividing Tenths Cards, Set 1

1.4 ÷ 7

0.2

$$2.1 \div 3$$

0.7

$$3.6 \div 6$$

0.6

$$1.8 \div 6$$

0.3

3.2 ÷ 4

0.8

$$6.4 \div 8$$

0.8

$$5.6 \div 7$$

0.8

$$7.2 \div 9$$

0.8

$$2.7 \div 9$$

0.3

Dividing Tenths Cards, Set 2

$$9.3 \div 3$$

3.1

$$0.9 \div 2$$

0.45

$$7.5 \div 3$$

2.5

5.2 ÷ 4

1.3

5.2 ÷ 2

2.6

3.2 ÷ 16

0.2

$0.42 \div 7$

0.06

$0.18 \div 3$

0.06

$$0.54 \div 9$$

0.06

0.45 ÷ 5

0.09

$0.32 \div 8$

0.04

Dividing Hundredths Cards, Set 1

$$0.24 \div 6$$

0.04

Dividing Hundredths Cards, Set 1

$$0.33 \div 3$$

0.11

$$0.64 \div 2$$

0.32

$0.85 \div 5$

0.17

$$0.64 \div 4$$

0.16

$0.48 \div 12$

0.04

Dividing Hundredths Cards, Set 2

$0.72 \div 6$

0.12

Dividing Hundredths Cards, Set 2

1.25 ÷ 25

0.05

$$0.32 \div 3$$

0.106

$0.26 \div 5$

0.052

$$0.19 \div 2$$

0.095

Dividing Hundredths Cards, Set 3

0.48 ÷ 10

0.048

$$0.23 \div 4$$

0.0575

Dividing Hundredths Cards, Set 3

2.5 ÷ 5

0.5

2.5 ÷ 0.5

5

Order the Quotients Cards

2.5 ÷ 0.05

50

2.5 ÷ 0.005

500

$$33.6 \div 0.8 = 42.0$$

$$12.88 \div 2.3 = 5.6$$

$$44.1 \div 1.8 = 24.5$$

$0.84 \div 0.06 = 14.0$

$$22.26 \div 5.3$$

4.2

$$2.88 \div 1.6$$

1.8

$$9.46 \div 0.22$$

43

$$61.5 \div 0.5$$

123

$$0.44 \div 0.2$$

2.2

$$1.75 \div 0.5$$

3.5

$$0.092 \div 0.023$$

4

$$0.8 \div 0.25$$

3.2

$$0.24 \div 0.5$$

0.48

$$46.08 \div 9.6$$

4.8

14.58 ÷ 2.7

5.4

$$0.108 \div 0.02$$

5.4

52.2 ÷ 0.2

261

0.24 ÷ 0.008

30

0.345 ÷ 0.15

2.3

0.297 ÷ 0.9

0.33

More Decimal Division Cards, Set 1

2.88 ÷ 0.04

72

More Decimal Division Cards, Set 1

30.24 ÷ 0.6

50.4

$$8.93 \div 1.9$$

4.7

0.184 ÷ 0.8

0.23

$$7.29 \div 0.3$$

24.3

$$19.05 \div 0.5$$

38.1

More Decimal Division Cards, Set 2

$$0.352 \div 0.4$$

0.88

$$3.234 \div 4.2$$

0.77

MONEY PROBLEMS

Zari and 3 of her friends earned $1,440 mowing lawns over the summer. If they split the money evenly, how much did each person receive?

$360

Zari and her 3 friends also paid a total of $19.72 for gasoline for the lawnmower. If they split the cost of the gasoline evenly, how much did each person pay?

$4.93

Including tax, the cost of renting a canoe is $7.92. Tavon and 2 friends split the cost evenly. How much does each friend pay?

$2.64

The local pet store sells gravel for fishbowls. The cost is $0.80 per pound. Jai scooped some of the gravel into a bag. After weighing it, the cashier said it cost $3.36. How many pounds of gravel did Jai scoop into the bag?

4.2 pounds

A square garden has a perimeter of 25.6 feet. What is the length of each side?

6.4 feet

Each ticket for the school Fun Fair is $0.15. How many tickets can be purchased for $5.25?

35 tickets

Sofia and her 2 brothers received $24.51 for the books that they traded in at the used book store. They split the money evenly among them. How much does each person receive?

$8.17

Dividing Decimals Story Cards, Set 2

A spice shop buys spices in bulk and puts them into small bags to sell. They buy 21 pounds of chili powder and put it in bags so that there is 0.42 pound of chili powder in each bag. How many bags of chili powder do they make?

50 bags

A soccer coach fills a large cooler with 187.5 ounces of water. The players evenly divide the water into 15 water bottles. How much water is in each water bottle?

12.5 ounces of water

How many 0.45-inch pieces of ribbon can be cut from a piece of ribbon that is 3.15 inches long?

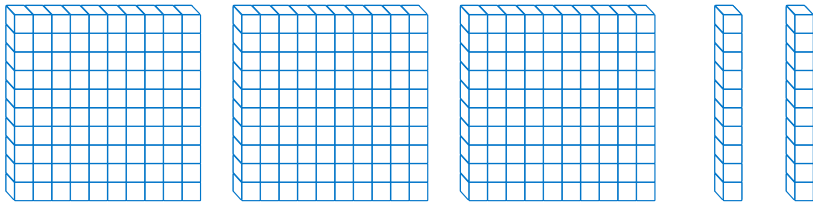**7 pieces of ribbon**

Complete each equation.

$45 \div 9 =$ __5__

$450 \div 9 =$ __50__

$4{,}500 \div 9 =$ __500__

$450 \div 90 =$ __5__

$4{,}500 \div 90 =$ __50__

Math Hunt Cards

The Base Ten Blocks shown represent the number 3.2. Explain how you could use the blocks to find the answer to 3.2 ÷ 4.

Sample answer:
You could shade the blocks evenly into 4 groups to find the answer.

Use an area model to show how to divide 1,524 ÷ 6.

254

Which expression would you use to help you estimate the solution to 2,369 ÷ 8?

- **A.** 2,000 ÷ 8
- **B.** 2,000 ÷ 10
- **C.** 2,500 ÷ 5
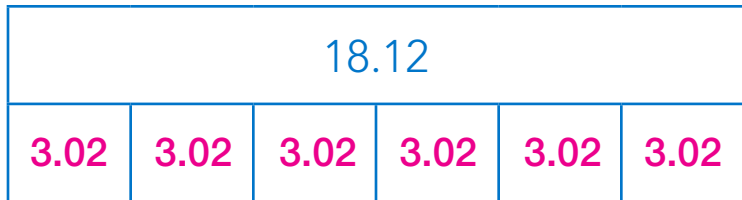- **D.** 2,400 ÷ 8

Explain your choice.

Sample answer:
2,369 rounds up to 2,400. I know that 24 is divisible by 8, which would help me estimate the solution.

Complete the strip diagram.

18.12					
3.02	**3.02**	**3.02**	**3.02**	**3.02**	**3.02**

Divide. Use an area model, partial sums, or the standard algorithm. Show your work.
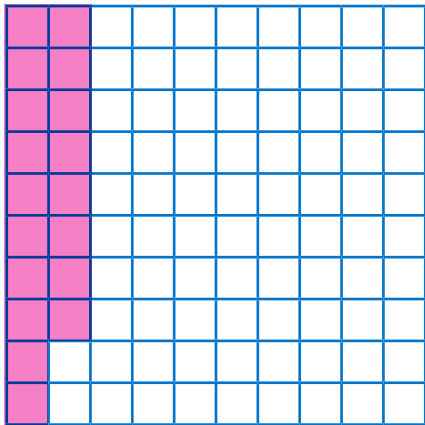
2,015 ÷ 5

403

Divide. Use an area model, partial sums, or the standard algorithm. Show your work.

3,596 ÷ 62

58

Use the model to show how to find the quotient 0.54 ÷ 3.

The cost of 3 pounds of zucchini at the farmers' market was $1.44. The cost of 5.2 pounds of zucchini at the grocery store was $2.08. Is the price for 1 pound of zucchini higher at the farmers' market or at the grocery store? Explain.

Sample answer:
The cost of zucchini is higher at the farmer's market. It costs $0.48 per pound. At the grocery store, it costs $0.40 per pound.

Reyna has a piece of rope that is 3.2 meters long.

How long would each piece be if Reyna cut the rope into 2 equal pieces?

1.6 meters long

How many 0.4-meter pieces could be made from the 3.2-meter piece of rope?

8 pieces

The total weight of 5 identical bags of flour is 6,500 grams. What is the weight of each bag of flour?

1,300 grams

Write a division problem with a 4-digit dividend that won't have a remainder.

1,000 ÷ 25 = 40