

Additional Practice 6-5

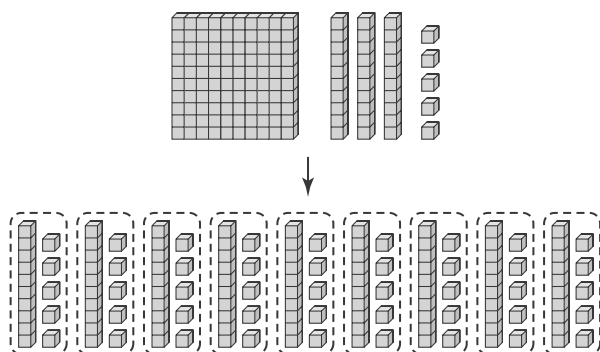
Divide by a Decimal

Another Look!

Find $1.35 \div 0.15$.

One Way

$1.35 \div 0.15$



1.35 shown in place-value blocks can be divided into 9 groups of blocks each showing 0.15.

So, $1.35 \div 0.15 = 9$.

Another Way

Think multiplication:

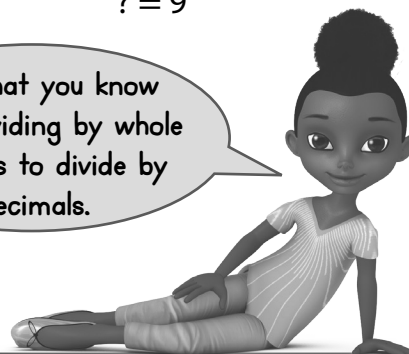
To find $1.35 \div 0.15$, use the relationship between multiplication and division.

$0.15 \times ? = 1.35$

15 hundredths $\times ? = 135$ hundredths

$? = 9$

Use what you know about dividing by whole numbers to divide by decimals.



In **1–4**, use what you know about multiplication and division, place value, and partial quotients to divide.

1. $4.55 \div 0.35$

13

2. $45.5 \div 3.5$

13

3. $455 \div 35$

13

4. Describe the relationship among Problems 1, 2, and 3.

Sample answer: The decimal moved the same amount in both the divisor and dividend, and the quotients were the same.

In **5–11**, find each quotient.

5. $0.32 \overline{)1.92}$

6

6. $3.2 \overline{)19.2}$

6

7. $0.01 \overline{)8.64}$

864

8. $0.1 \overline{)86.4}$

864

9. $0.22 \overline{)8.8}$

40

10. $2.2 \overline{)8.8}$

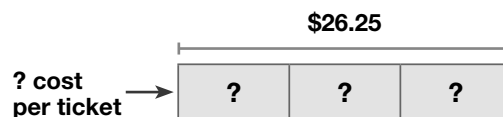
4

11. $0.22 \overline{)88.0}$

400

12. Three friends paid \$26.25 to see a movie. How much did each ticket cost?

\$8.75



13. In a timed typing test, Lara typed 63 words per minute. Estimate the number of words she should be able to type in half an hour. Show your work.

About 1,800 words;
 $30 \times 60 = 1,800$

14. A stack of sheets of tissue paper is about 2.5 inches high. Each sheet is about 0.01 inch thick. How many sheets are in the stack? Show your work.

250 sheets;
 $2.5 \div 0.01 = 250 \div 1 = 250$

15. Is the quotient for $41 \div 0.8$ greater or less than 41? Explain.

Greater; the divisor is less than 1, so the quotient is greater than the dividend.

16. **Construct Arguments** How does the quotient $10.5 \div 1.5$ compare to the quotient $105 \div 15$? Explain.

Sample answer: The quotients are equal because multiplying both the dividend and divisor by 10 does not change the quotient.

17. **Number Sense** The fence next to the creek near Adam's house leans a little more each year because the bank of the creek is eroding. If the fence leans about 3.7 degrees more each year, estimate how many more degrees the fence will lean after 5 years.

Sample answer: About 20 degrees more

18. **Higher Order Thinking** The Clark family must pay \$2,820 in property tax on their home this year. Their house payment is \$752 per month. What is their payment each month with the tax? Assume that the tax is paid in equal monthly installments.

\$987 per month

Assessment Practice

19. Select the expressions that have a quotient of 8.

- ☒ $0.56 \div 0.07$
☐ $0.56 \div 0.7$
☐ $5.6 \div 0.07$
☒ $5.6 \div 0.7$

20. Select the expressions that have a quotient of 4.

- ☐ $4.8 \div 0.12$
☒ $4.8 \div 1.2$
☐ $0.48 \div 1.2$
☒ $0.48 \div 0.12$