LESSON MAKER PRO

Quotients in Action

Use the standard division algorithm to solve each problem.

GRADE 6 · 6.NS.B.5

6.NS.B.5 "Fluently divide multi-digit whole numbers using a standard algorithm to solve real-world and mathematical problems."

NAME _____ DATE _____

LONG DIVISION

Divide from left to right, starting with the first group of digits large enough for the divisor. After each division, multiply, subtract, and bring down the next digit. Write 0 in the quotient if the divisor does not fit.

WORKED EXAMPLE

Find 14,784 / 24.

1. 147 / 24 = 6. Write 6 above the 7, then subtract: 147 - 144 = 3. Bring down the 8 to make 38.
2. 38 / 24 = 1. Write 1 above the 8, then subtract: 38 - 24 = 14. Bring down the 4 to make 144.
3. 144 / 24 = 6. Write 6 above the 4, then subtract: 144 - 144 = 0.

Answer: 616

PRACTICE 6 problems

1 Find 8,736 / 28.

ANSWER _____

2 Find 17,360 / 35.

ANSWER _____

3 Find 50,112 / 48.

ANSWER _____

4 Find 93,744 / 72.

ANSWER _____

5 Find 88,704 / 96.

ANSWER _____

6 Find 168,480 / 120.

ANSWER _____

APPLY IT Show your work

1 An arcade gives 23,760 tickets equally to 45 teams in a tournament. How many tickets does each team get? Use the standard division algorithm.

WORK SPACE

ANSWER _____

2 A game shop packs 27,648 trading cards into packs of 48. How many packs does it make? Use the standard division algorithm.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A student claims that 1,234,800 / 240 = 5,145. Use the standard division algorithm to test the claim. Show the remainder after each subtraction.

WORK SPACE AND ANSWER

ANSWER KEY

Quotients in Action

GRADE 6 · 6.NS.B.5

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 8,736 / 28.	**312**
2	Find 17,360 / 35.	**496**
3	Find 50,112 / 48.	**1,044**
4	Find 93,744 / 72.	**1,302**
5	Find 88,704 / 96.	**924**
6	Find 168,480 / 120.	**1,404**

PART 2 · APPLY IT

1. **528 tickets** Divide 23,760 by 45. The quotient is 528.
2. **576 packs** Divide 27,648 by 48. The quotient is 576, with no cards left over.

CHALLENGE

The claim is correct. The quotient is 5,145. The remainders after subtraction are 34, 108, 120, and 0.

All divisions have no remainder. For the challenge, accept any clear long-division layout that shows the correct quotient digits and remainders.