LESSON MAKER PRO

Divide and Decide

Use place value to find quotients and remainders.

GRADE 4 · MT.4.NBT.6

MT.4.NBT.6 "Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, flexibly using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division..."

NAME _____ DATE _____

THE BIG IDEA

Break the quotient into place-value parts. Multiply each part by the divisor, then add the products to check the dividend. If some are left over, the remainder must be less than the divisor.

WORKED EXAMPLE

What division equation does this area model show?

	200	30	4
4	800	120	16

1. 4 × 200 = 800; 4 × 30 = 120; 4 × 4 = 16.
2. 800 + 120 + 16 = 936.
3. 200 + 30 + 4 = 234.

Answer: 936 ÷ 4 = 234

PRACTICE 4 problems

1 648 ÷ 3 = ___

ANSWER _____

2 875 ÷ 5 = ___

ANSWER _____

3 1,274 ÷ 7 = ___

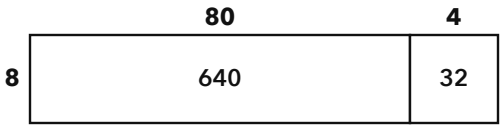
ANSWER _____

4 3,014 ÷ 6 = ___ R ___

ANSWER _____

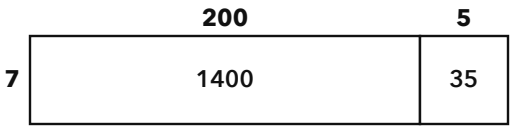
APPLY IT Show your work

1 A class splits 672 arcade tickets equally among groups. The model shows the groups and their shares. How many tickets does each group get?



ANSWER _____

2 A game club shares 1,437 tokens equally among teams. The model shows the tokens shared. How many does each team get, and how many are left?



ANSWER _____

CHALLENGE One step up

A class packs 2,354 beads into bags of 9. Write a multiplication equation that shows the quotient and remainder. Explain why the remainder is correct.

WORK SPACE AND ANSWER

ANSWER KEY

Divide and Decide

GRADE 4 · MT.4.NBT.6

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	648 ÷ 3 = ___	**216**
2	875 ÷ 5 = ___	**175**
3	1,274 ÷ 7 = ___	**182**
4	3,014 ÷ 6 = ___ R ___	**502 R 2**

PART 2 · APPLY IT

1. **84 tickets** The model shows 8 × 80 + 8 × 4 = 672. Each group gets 80 + 4 = 84 tickets.
2. **205 tokens per team; 2 tokens left** The model shows 7 × (200 + 5) = 1,435 tokens shared. That leaves 2 of the 1,437 tokens.

CHALLENGE

9 × 261 + 5 = 2,354. The remainder is 5 because 9 × 261 = 2,349 and 5 beads are left, fewer than 9.

Accept equivalent place-value splits. For each remainder, check that it is less than the divisor.