LESSON MAKER PRO

Divide and Decide

Estimate, divide, and make sense of remainders.

GRADE 5 · 5.N.2

5.N.2 "Divide multi-digit numbers and solve real-world and mathematical problems using arithmetic. Estimate solutions to division problems to assess the reasonableness of results. Divide multi-digit numbers, by one- and two-digit divisors..."

NAME _____ DATE _____

THE BIG IDEA

Estimate first to predict about how large the quotient should be. Then use place value to divide and multiply to check your answer. If there is a remainder, write it in a form that makes sense for the problem.

WORKED EXAMPLE

Find 864 / 8. Estimate first.

1. Estimate: 800 / 8 = 100.
2. Break apart 864 as 800 + 64.
3. Divide each part: 800 / 8 = 100 and 64 / 8 = 8.
4. Add and check: 100 + 8 = 108, and 108 × 8 = 864.

Answer: 864 / 8 = 108

PRACTICE 6 problems

1 Estimate 936 / 4 using 1,000 / 4. Then find the exact quotient.

ANSWER _____

2 Find 1,248 / 6.

ANSWER _____

3 Find 2,475 / 9.

ANSWER _____

4 Find 1,596 / 12.

ANSWER _____

5 Find 3,367 / 15. Write the remainder as a whole number.

ANSWER _____

6 Find 1,019 / 5. Write the quotient as a decimal.

ANSWER _____

APPLY IT Show your work

1 A game club has 1,157 stickers. Each prize bag holds 24 stickers. How many full prize bags can the club make, and how many stickers will be left?

WORK SPACE

ANSWER _____

2 Four teams share 925 cm of streamer equally to decorate their game booths. How many centimeters of streamer does each team get?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A game club has 1,387 cards. It keeps 72 cards for its collection and puts the rest into packs of 25. How many full packs can it make, and how many cards are left? Explain why it cannot make one more full pack.

WORK SPACE AND ANSWER

ANSWER KEY

Divide and Decide

GRADE 5 · 5.N.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate 936 / 4 using 1,000 / 4. Then find the exact quotient.	**Estimate: 250; exact quotient: 234**
2	Find 1,248 / 6.	**208**
3	Find 2,475 / 9.	**275**
4	Find 1,596 / 12.	**133**
5	Find 3,367 / 15. Write the remainder as a whole number.	**224 R7**
6	Find 1,019 / 5. Write the quotient as a decimal.	**203.8**

PART 2 · APPLY IT

1. **48 full prize bags, with 5 stickers left** 1,157 / 24 = 48 R5. Check: 48 × 24 + 5 = 1,157.
2. **231.25 cm** 925 / 4 = 231 R1. The remaining 1 cm can be split into fourths, so each team gets 231.25 cm.

CHALLENGE

1,387 - 72 = 1,315. Then 1,315 / 25 = 52 R15. The club can make 52 full packs, with 15 cards left. It cannot make another full pack because 15 is less than 25.

For 224 R7, accept equivalent whole-number remainder notation. In context problems, answers must identify what the quotient and remainder represent.