LESSON MAKER PRO

Divide It Out

Estimate, solve, and check division stories.

GRADE 4 · 4.CE.2.j

4.CE.2.j "Estimate, represent, solve, and justify solutions to single-step contextual problems involving division with whole numbers."

NAME _____ DATE _____

DIVIDE EQUALLY

To share a total equally, divide the total by the number of groups. Estimate first with a nearby number that divides evenly, then solve and check by multiplying.

WORKED EXAMPLE

84 crayons are put into 7 equal cups. How many crayons go in each cup?

1. Estimate: 84 is a number that divides evenly by 7.
2. Write the equation: 84 / 7 = 12.
3. Check: 7 x 12 = 84.

Answer: 12 crayons in each cup

PRACTICE 6 problems

1 Estimate, then solve: 96 / 3

ANSWER _____

2 Use multiplication to check: 144 / 6

ANSWER _____

3 Write a division equation and solve. A baker puts 72 cookies equally on 9 trays. How many cookies are on each tray?

ANSWER _____

4 Estimate, then solve: 88 / 4

ANSWER _____

5 Solve and check. A game store packs 135 cards equally into 5 boxes. How many cards go in each box?

ANSWER _____

6 Estimate, then solve. Write any remainder: 218 / 6

ANSWER _____

APPLY IT Show your work

1 The school soccer club has 156 trading cards. The cards are shared equally among 4 teams. Estimate how many cards each team will get. Then solve and explain how you know your answer is reasonable.

WORK SPACE

ANSWER _____

2 A craft club has 173 beads. Each bracelet needs 8 beads. Estimate how many full bracelets the club can make. Then solve and tell how many beads are left.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A theater has 287 tickets to place equally into groups of 9 for a class activity. Estimate the number of full groups. Then find the exact number of full groups and leftover tickets. Explain why your estimate makes sense.

WORK SPACE AND ANSWER

ANSWER KEY

Divide It Out

GRADE 4 · 4.CE.2.j

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate, then solve: 96 / 3	**Estimate: 90 / 3 = 30; 96 / 3 = 32**
2	Use multiplication to check: 144 / 6	**24; check: 6 x 24 = 144**
3	Write a division equation and solve. A baker puts 72 cookies equally on 9 trays. How many cookies are on each tray?	**72 / 9 = 8, so 8 cookies are on each tray.**
4	Estimate, then solve: 88 / 4	**Estimate: 80 / 4 = 20; 88 / 4 = 22**
5	Solve and check. A game store packs 135 cards equally into 5 boxes. How many cards go in each box?	**27 cards; check: 5 x 27 = 135**
6	Estimate, then solve. Write any remainder: 218 / 6	**Estimate: 216 / 6 = 36; 218 / 6 = 36 R2**

PART 2 · APPLY IT

1. **Each team gets 39 cards.** Estimate: 160 / 4 = 40. Divide 156 by 4 to get 39. The exact answer is close to the estimate of 40, so it is reasonable.
2. **The club can make 21 full bracelets with 5 beads left.** Estimate: 176 / 8 = 22. Divide 173 by 8. Since 8 x 21 = 168, there are 5 beads left.

CHALLENGE

Estimate: 288 / 9 = 32. Exact answer: 31 full groups with 8 tickets left, because 9 x 31 = 279 and 287 - 279 = 8. The exact number is close to 32 because 287 is close to 288.

Accept reasonable compatible-number estimates that are close to the exact quotient. For division with remainders, accept an equivalent statement such as 36 remainder 2 or 36 R2.