LESSON MAKER PRO

Close Enough Quotients

Use nearby numbers to make division easier.

GRADE 4 · 4.NOS.B.6.a

4.NOS.B.6.a "Apply estimation strategies to estimate quotients."

NAME _____ DATE _____

ESTIMATE WITH COMPATIBLE NUMBERS

To estimate a quotient, replace the number being divided with a nearby number that is easy to divide by the divisor. Divide, then write your answer using "about" because it is an estimate.

WORKED EXAMPLE

Estimate 238 / 6.

1. Choose 240, a number near 238 that divides evenly by 6.
2. Divide: 240 / 6 = 40.

Answer: 238 / 6 is about 40.

PRACTICE 6 problems

1 Use 200 to estimate 196 / 4.

ANSWER _____

2 Use 270 to estimate 274 / 9.

ANSWER _____

3 Estimate 415 / 7 using a nearby multiple of 70.

ANSWER _____

4 Which is a better estimate for 358 / 5, 60 or 70? Use 350 as a compatible number.

ANSWER _____

5 Use 330 to estimate 334 / 3.

ANSWER _____

6 A student uses 280 to estimate 292 / 4. Find a multiple of 100 closer to 292 than 280 is. Use it to make a new estimate.

ANSWER _____

APPLY IT Show your work

1 Five friends share 447 arcade tickets equally. Use 450 to estimate how many tickets each friend gets.

WORK SPACE

ANSWER _____

2 A club sorts 524 collectible cards equally into 4 binders. Use 520 to estimate how many cards go in each binder.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Two students estimate 787 / 9. One uses 720 / 9, and the other uses 810 / 9. Which estimate is likely closer? Explain by comparing how far 720 and 810 are from 787.

WORK SPACE AND ANSWER

ANSWER KEY

Close Enough Quotients

GRADE 4 · 4.NOS.B.6.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use 200 to estimate 196 / 4.	**About 50**
2	Use 270 to estimate 274 / 9.	**About 30**
3	Estimate 415 / 7 using a nearby multiple of 70.	**About 60**
4	Which is a better estimate for 358 / 5, 60 or 70? Use 350 as a compatible number.	**70**
5	Use 330 to estimate 334 / 3.	**About 110**
6	A student uses 280 to estimate 292 / 4. Find a multiple of 100 closer to 292 than 280 is. Use it to make a new estimate.	**300; about 75**

PART 2 · APPLY IT

1. **About 90 tickets per friend** 450 is close to 447, and 450 / 5 = 90.
2. **About 130 cards per binder** 520 is close to 524, and 520 / 4 = 130.

CHALLENGE

810 / 9 = 90 is likely closer. 810 is 23 away from 787, while 720 is 67 away.

Accept answers with or without the word “about” when the estimate is clear. For the challenge, accept any explanation that correctly compares the two distances and chooses 90.