LESSON MAKER PRO

Round, Multiply, Share

Use rounding and place value to make big-number math manageable.

GRADE 4 · MA.4.NSO.2.5

MA.4.NSO.2.5 "Explore the multiplication and division of multi-digit whole numbers using estimation, rounding and place value."

NAME _____ DATE _____

ESTIMATE WITH FRIENDLY NUMBERS

To estimate a product, round each factor to a place that makes multiplication easy, then multiply. To estimate a quotient, choose a nearby compatible number that divides evenly. Place value can also help you see that 4 hundreds multiplied by 3 tens equals 12 thousands.

WORKED EXAMPLE

Estimate 463 x 27. Round 463 to the nearest hundred and 27 to the nearest ten.

1. 463 rounds to 500.
2. 27 rounds to 30.
3. 500 x 30 = 15,000.

Answer: 15,000

PRACTICE 6 problems

1 Estimate 247 x 31. Round 247 to the nearest hundred and 31 to the nearest ten.

ANSWER _____

2 Estimate 684 x 47. Round 684 to the nearest hundred and 47 to the nearest ten.

ANSWER _____

3 Estimate 573 / 7. Use 560 as a compatible number.

ANSWER _____

4 Estimate 1,243 / 6. Use 1,200 as a compatible number.

ANSWER _____

5 Use place value to find 34 x 300.

ANSWER _____

6 Use place value to find 4,800 / 60.

ANSWER _____

APPLY IT Show your work

1 The school carnival has 38 game booths. Each booth needs 214 prize tickets. Estimate how many tickets the carnival needs. Round 214 to the nearest hundred and 38 to the nearest ten.

WORK SPACE

ANSWER _____

2 A craft club has 1,476 beads to make 6 bead strings. Estimate how many beads will go on each string. Use 1,500 as a compatible number.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Mia says 1,968 / 8 is about 200 because she used 1,600 / 8. Leo says it is about 250 because he used 2,000 / 8. Who has the better estimate? Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Round, Multiply, Share

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate 247 x 31. Round 247 to the nearest hundred and 31 to the nearest ten.	**6,000**
2	Estimate 684 x 47. Round 684 to the nearest hundred and 47 to the nearest ten.	**35,000**
3	Estimate 573 / 7. Use 560 as a compatible number.	**80**
4	Estimate 1,243 / 6. Use 1,200 as a compatible number.	**200**
5	Use place value to find 34 x 300.	**10,200**
6	Use place value to find 4,800 / 60.	**80**

PART 2 · APPLY IT

1. **About 8,000 tickets** Round 214 to 200 and 38 to 40. Then multiply 200 x 40 to get 8,000.
2. **About 250 beads per string** Use the compatible number 1,500. Divide 1,500 by 6 to get 250.

CHALLENGE

Leo has the better estimate. 1,968 is close to 2,000, and 2,000 / 8 = 250. The exact quotient is 246, so 250 is closer than 200.

Accept equivalent wording for estimated answers, including answers that use the word about. For the estimation items, accept only the results based on the rounding or compatible numbers named in each prompt.