LESSON MAKER PRO

Multiply Mission

Estimate, then use the standard algorithm.

GRADE 4 · 4.CE.2.g.ii

4.CE.2.g.ii "Apply strategies (e.g., rounding, place value, properties of multiplication and/or addition) and algorithms, including the standard algorithm..."

NAME _____ DATE _____

MULTIPLY WITH PLACE VALUE

First, round the three-digit factor to the nearest hundred to make a quick estimate. Then use the standard algorithm by multiplying the ones, tens, and hundreds, regrouping when needed.

WORKED EXAMPLE

Estimate and find 324 x 3.

1. Round 324 to 300, so 300 x 3 = 900.
2. Multiply the ones: 3 x 4 = 12. Write 2 and regroup 1.
3. Multiply the tens: 3 x 2 tens = 6 tens, plus 1 ten = 7 tens.
4. Multiply the hundreds: 3 x 3 hundreds = 9 hundreds.

Answer: Estimate: 900. Product: 972.

PRACTICE 6 problems

1 Estimate and find 146 x 2.

ANSWER _____

2 Estimate and find 218 x 4.

ANSWER _____

3 Estimate and find 375 x 5.

ANSWER _____

4 Estimate and find 462 x 6.

ANSWER _____

5 Estimate and find 709 x 7.

ANSWER _____

6 Estimate and find 854 x 8.

ANSWER _____

APPLY IT Show your work

1 At a school recycling drive, each of 4 classrooms brings 638 cans. Estimate how many cans the classrooms bring. Then find the exact number of cans.

WORK SPACE

ANSWER _____

2 A community garden plants 9 rows of 427 sunflower seeds. Estimate how many seeds are planted. Then find the exact number of seeds.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A robotics club needs 684 bolts for each of 7 robots. First estimate by rounding 684 to the nearest hundred. Then find the exact number of bolts. Explain why your exact answer makes sense.

WORK SPACE AND ANSWER

ANSWER KEY

Multiply Mission

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate and find 146 x 2.	**Estimate: 200. Product: 292.**
2	Estimate and find 218 x 4.	**Estimate: 800. Product: 872.**
3	Estimate and find 375 x 5.	**Estimate: 2,000. Product: 1,875.**
4	Estimate and find 462 x 6.	**Estimate: 3,000. Product: 2,772.**
5	Estimate and find 709 x 7.	**Estimate: 4,900. Product: 4,963.**
6	Estimate and find 854 x 8.	**Estimate: 7,200. Product: 6,832.**

PART 2 · APPLY IT

1. **Estimate: 2,400 cans. Exact number: 2,552 cans.** Round 638 to 600, then multiply 600 x 4 to estimate. Multiply 638 x 4 to find 2,552.
2. **Estimate: 3,600 seeds. Exact number: 3,843 seeds.** Round 427 to 400, then multiply 400 x 9 to estimate. Multiply 427 x 9 to find 3,843.

CHALLENGE

Estimate: 4,900 bolts. Exact number: 4,788 bolts. The exact product is close to the estimate because 684 is close to 700.

Accept correct products found with the standard algorithm, partial products, or another accurate multiplication strategy. Estimates may vary only if the student clearly uses a reasonable stated rounding method.