LESSON MAKER PRO

Product Power

Estimate and multiply two-digit numbers.

GRADE 4 · 4.CE.2.g.iii

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

NAME _____ DATE _____

ESTIMATE, THEN MULTIPLY

To estimate a product, round each factor to the nearest ten and multiply the rounded numbers. To find the exact product, multiply by the ones digit, then multiply by the tens digit, and add the partial products.

WORKED EXAMPLE

Find 34 x 26.

1. 34 x 6 = 204
2. 34 x 20 = 680
3. 204 + 680 = 884

Answer: 884

PRACTICE 6 problems

1 Estimate, then find the exact product: 27 x 43

ANSWER _____

2 Estimate, then find the exact product: 58 x 32

ANSWER _____

3 Estimate, then find the exact product: 46 x 19

ANSWER _____

4 Estimate, then find the exact product: 72 x 25

ANSWER _____

5 Estimate, then find the exact product: 63 x 47

ANSWER _____

6 Estimate, then find the exact product: 81 x 14

ANSWER _____

APPLY IT Show your work

1 The school store has 24 boxes of stickers. Each box has 36 stickers. Estimate how many stickers there are. Then find the exact number of stickers.

WORK SPACE

ANSWER _____

2 A game club gives 23 game cards to each of 48 students. Estimate how many cards the club gives away. Then find the exact number of cards.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Estimate 99 x 67 by rounding. Then find the exact product. Explain in one or two sentences how 100 x 67 can help.

WORK SPACE AND ANSWER

ANSWER KEY

Product Power

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate, then find the exact product: 27 x 43	**Estimate: 1,200. Exact product: 1,161.**
2	Estimate, then find the exact product: 58 x 32	**Estimate: 1,800. Exact product: 1,856.**
3	Estimate, then find the exact product: 46 x 19	**Estimate: 1,000. Exact product: 874.**
4	Estimate, then find the exact product: 72 x 25	**Estimate: 2,100. Exact product: 1,800.**
5	Estimate, then find the exact product: 63 x 47	**Estimate: 3,000. Exact product: 2,961.**
6	Estimate, then find the exact product: 81 x 14	**Estimate: 800. Exact product: 1,134.**

PART 2 · APPLY IT

1. **Estimate: 800 stickers. Exact number: 864 stickers.** Round 24 to 20 and 36 to 40, so the estimate is 20 x 40 = 800. Multiply 24 x 36 to find 864.
2. **Estimate: 1,000 cards. Exact number: 1,104 cards.** Round 23 to 20 and 48 to 50, so the estimate is 20 x 50 = 1,000. Multiply 23 x 48 to find 1,104.

CHALLENGE

Estimate: 7,000. 99 x 67 = 6,633 because 100 x 67 = 6,700, and subtracting 67 gives 6,633.

Accept estimates made by rounding each factor to the nearest ten. Students may use the standard algorithm, partial products, or a correct place-value strategy for exact products.