LESSON MAKER PRO

Multiply, Divide, Decide

Use smart steps to solve whole-number problems.

GRADE 5 · 5.CE.1.b.ii

5.CE.1.b.ii "Represent, solve, and justify solutions to single-step and multistep contextual problems by applying strategies (e.g., estimation, properties of addition and multiplication) and algorithms, including the standard algorithm..."

NAME _____ DATE _____

BUILD PARTIAL PRODUCTS

First estimate by rounding so you know about what your answer should be. Then multiply the three-digit number by the ones and tens of the two-digit number, and add the partial products.

WORKED EXAMPLE

47 x 126

1. Estimate: 50 x 126 = 6,300.
2. Multiply ones: 126 x 7 = 882.
3. Multiply tens: 126 x 40 = 5,040.
4. Add: 5,040 + 882 = 5,922.

Answer: 5,922

PRACTICE 6 problems

1 Estimate, then solve: 36 x 214

ANSWER _____

2 Solve: 5,084 - 2,679

ANSWER _____

3 Solve: 3,486 + 2,759

ANSWER _____

4 Solve: 1,728 / 24

ANSWER _____

5 Use partial products or the standard algorithm: 63 x 105

ANSWER _____

6 Solve: 4,896 / 32

ANSWER _____

APPLY IT Show your work

1 A gaming club orders 28 prize packs. Each pack has 135 trading cards. The club gives 680 cards to players. How many trading cards are left?

WORK SPACE

ANSWER _____

2 A video game tournament has 32 boxes of wristbands. Each box holds 144 wristbands. The wristbands are shared equally among 9 check-in tables. How many wristbands does each table get?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A maker club buys 45 kits with 128 beads in each kit. The club uses 975 beads. How many beads are left? Use an estimate and numbers to explain why your answer makes sense.

WORK SPACE AND ANSWER

ANSWER KEY

Multiply, Divide, Decide

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate, then solve: 36 x 214	**about 8,000; 7,704**
2	Solve: 5,084 - 2,679	**2,405**
3	Solve: 3,486 + 2,759	**6,245**
4	Solve: 1,728 / 24	**72**
5	Use partial products or the standard algorithm: 63 x 105	**6,615**
6	Solve: 4,896 / 32	**153**

PART 2 · APPLY IT

1. **3,100 trading cards** Multiply 28 x 135 to find 3,780 cards. Subtract 680, so 3,100 cards are left.
2. **512 wristbands** Multiply 32 x 144 to get 4,608 wristbands. Divide 4,608 by 9 to get 512 wristbands per table.

CHALLENGE

4,785 beads. Since 45 x 128 = 5,760 and 5,760 - 975 = 4,785, the answer is correct. Estimating 45 x 130 and then subtracting about 1,000 gives about 4,850, which is close.

Accept any reasonable estimate for Problem 1, such as 7,200 or 8,000, when the exact product is 7,704. Accept correct standard-algorithm, partial-product, or compatible-number work.