LESSON MAKER PRO

Split and Multiply

Break apart a factor to find a product.

GRADE 3 · 3.NOS.E.9.c

3.NOS.E.9.c "Use properties of operations (e.g., to solve 8 × 7, think of (5 × 7) + (3 × 7)) to multiply."

NAME _____ DATE _____

THE BIG IDEA

You can split one factor into two parts. Multiply each part by the other factor, then add the products.

WORKED EXAMPLE

Find 4 × 3 by splitting 4.

1. 4 = 2 + 2
2. 2 × 3 = 6
3. 2 × 3 = 6
4. 6 + 6 = 12

Answer: 4 × 3 = 12

PRACTICE 6 problems

1 Complete: 6 × 7 = (5 × 7) + (___ × 7) = ___

ANSWER _____

2 Complete: 8 × 6 = (5 × 6) + (___ × 6) = ___

ANSWER _____

3 Complete: 7 × 9 = (5 × 9) + (___ × 9) = ___

ANSWER _____

4 Complete: 9 × 8 = (5 × 8) + (___ × 8) = ___

ANSWER _____

5 Complete: 7 × 7 = (5 × 7) + (___ × 7) = ___

ANSWER _____

6 Complete: 8 × 8 = (5 × 8) + (___ × 8) = ___

ANSWER _____

APPLY IT Show your work

1 At a school fair, 9 prize bags hold 6 stickers each. How many stickers are in the bags? Split 9 into 5 + 4 to show your work.

WORK SPACE

ANSWER _____

2 A class makes 7 friendship bracelets. Each bracelet uses 8 beads. How many beads do they use? Split 7 into 5 + 2 to show your work.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Find 9 × 9 in two ways. First split the first 9 into 5 + 4. Then split it into 7 + 2. Write an equation for each way.

WORK SPACE AND ANSWER

ANSWER KEY

Split and Multiply

GRADE 3 · 3.NOS.E.9.c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Complete: 6 × 7 = (5 × 7) + (___ × 7) = ___	**6 × 7 = (5 × 7) + (1 × 7) = 42**
2	Complete: 8 × 6 = (5 × 6) + (___ × 6) = ___	**8 × 6 = (5 × 6) + (3 × 6) = 48**
3	Complete: 7 × 9 = (5 × 9) + (___ × 9) = ___	**7 × 9 = (5 × 9) + (2 × 9) = 63**
4	Complete: 9 × 8 = (5 × 8) + (___ × 8) = ___	**9 × 8 = (5 × 8) + (4 × 8) = 72**
5	Complete: 7 × 7 = (5 × 7) + (___ × 7) = ___	**7 × 7 = (5 × 7) + (2 × 7) = 49**
6	Complete: 8 × 8 = (5 × 8) + (___ × 8) = ___	**8 × 8 = (5 × 8) + (3 × 8) = 64**

PART 2 · APPLY IT

1. **54 stickers** (5 × 6) + (4 × 6) = 30 + 24 = 54.
2. **56 beads** (5 × 8) + (2 × 8) = 40 + 16 = 56.

CHALLENGE

9 × 9 = (5 × 9) + (4 × 9) = 81; 9 × 9 = (7 × 9) + (2 × 9) = 81

For the practice problems, both blanks must be correct. In the word problems and challenge, accept equivalent addition equations that use the requested splits.