## **Multiplying Multi-Digit Numbers**

Complete the multiplication sentences after splitting and completing an area model or completing a puzzle.



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#### Lesson 2

### Writing Vertical Records

**1** Fill in the puzzle. Then complete the multiplication records.



#### Write the partial products on the area models. Then complete the multiplication records.



### **Writing Shorter Records**

• Complete the puzzle and record.



2 Complete the area model. Then complete the puzzle and record.



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$\Box$	Test	Prep
V		-

- Which of the following is NOT equal to 86  $\times$  24?
  - A.  $(80 \times 24) + (6 \times 24)$
  - **B.**  $(80 \times 6) + (20 \times 4)$
  - **C.**  $(20 \times 86) + (4 \times 86)$
  - **D.**  $(24 \times 6) + (24 \times 80)$

- Which will NOT produce the same result as  $81 \times 69$ ?
  - **A.** 69 × 81
  - **B.**  $(80 + 1) \times (9 + 60)$
  - **C.** (60 + 9) + (80 + 1)
  - **D.**  $(81 \times 60) + (81 \times 9)$

# **Using Square Number Differences**

#### Complete the tables.

h. 1

а	7	9		40	
a²			144		2,500

	h. 1
	D.
 <b>C</b> 1	

b	8		12	15	
<i>b</i> <sup>2</sup> – 1		99			899

с	4				11
(c + 2) × (c - 2)		5		396	
<i>c</i> <sup>2</sup> – 4			21		

L	Test Prep				
	A certain pai sum of 25 an The numbers	r of numbers have a d a difference of 9. s must be:	5 The square c added to the number. The	of one number is e square of another e sum is 41. The	
	<b>A.</b> 5, 5 <b>B.</b> 17, 8	<b>C.</b> 25, 9 <b>D.</b> 9, 16	numbers cou A. 6, 2 B. 40, 1	ıld be: C. 5, 4 D. 3, 5	

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### **Multiplying Large Numbers**

Complete the area model, puzzle, and record.



2

×	200	40	8	248	]			×	Ζ	4 6	°
					– 248 ×						
					_ 248 ×						
62					– 248 ×	62	-				

#### **Test Prep**

The Gomez family is planning a party at a restaurant. They are inviting 51 adults and 26 children. If the cost is \$49 per adult and \$24 per child, how much should they expect to spend on the party? Explain how you found your answer.