Multiplication and Addition

Write the outputs. Then record the calculations in a number sentence.

1

| 6 | 3 |

↓   ↓

addition

↓

☐

↓

× 7

↓

☐

Number sentence:

$(\boxed{} + \boxed{}) \times \boxed{} = \boxed{}$

2

| 6 | 3 |

↓   ↓

× 7   **× 7**

↓   ↓

☐   ☐

↓   ↓

addition

↓

☐
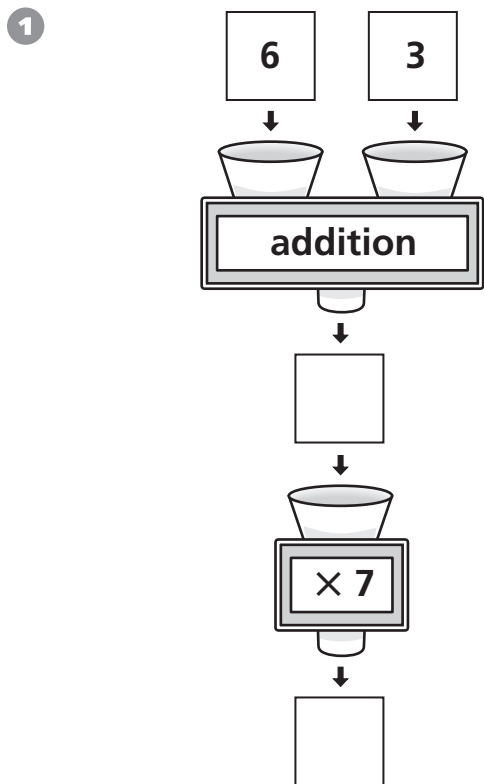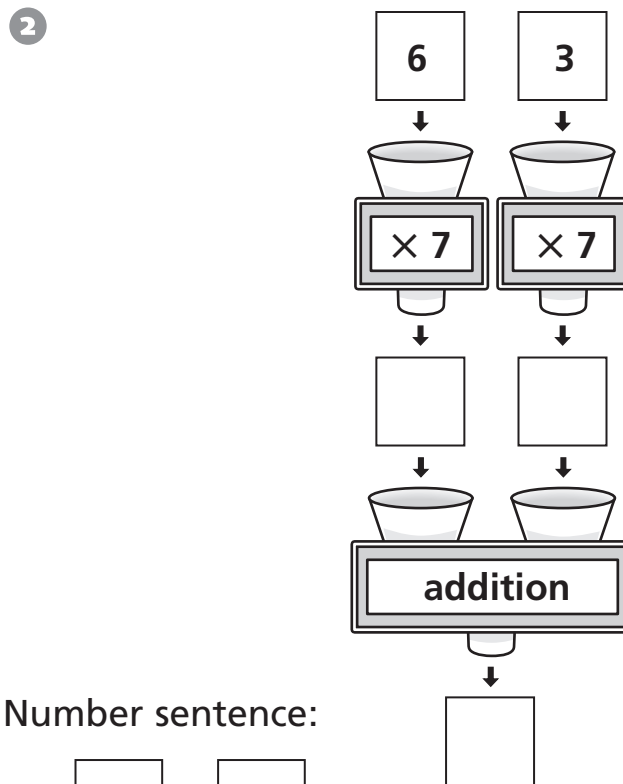
Number sentence:

$(\boxed{} \times \boxed{}) +$

$(\boxed{} \times \boxed{}) = \boxed{}$

Test Prep

3 Compare figures A and B. Are the figures congruent? Explain how you know.
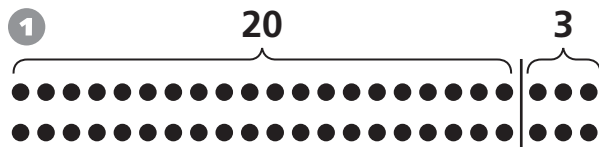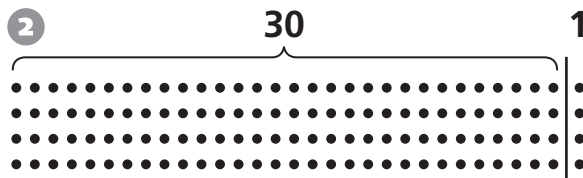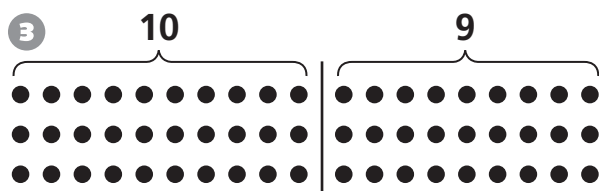
A   B

_____

_____

_____
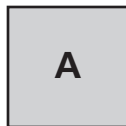
Using Sums to Multiply

Complete the multiplication problems to match the diagram. Make the third product equal to the sum of the first two products.
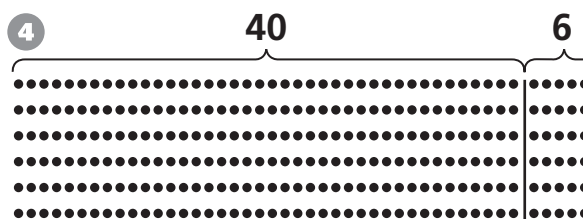
❶ 20   3

20   3   23

$\times\ 2$ $\times\ 2$ $\times\ 2$

| 40 | | |

❷ 30   1

☐   ☐   31

$\times\ 4$ $\times\ 4$ $\times\ 4$

| | | |

❸ 10   9

☐   ☐   19

$\times\ 3$ $\times\ 3$ $\times\ 3$

| | | |

❹ 40   6

☐   ☐   46

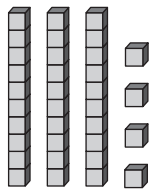$\times\ 6$ $\times\ 6$ $\times\ 6$

| | | |

Test Prep

❺ Ms. Lopez bought 50 inches of ribbon to decorate 2 shirts. She used 18 inches of the ribbon for each shirt. How many inches of ribbon did she have left?

A. 14 inches   **C.** 36 inches

B. 32 inches   **D.** 68 inches

Multiplying with Base-Ten Blocks

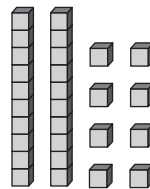**Write the number represented by . . .**

❶ the rods only   30

the units only   4

all the blocks   34

❷ 2 × the rods   _____

2 × the units   _____

2 × all the blocks   _____

❸ 3 × the rods   _____

3 × the units   _____

3 × all the blocks   _____

❹ the rods only   _____

the units only   _____

all the blocks   _____

❺ 4 × the rods   _____

4 × the units   _____

4 × all the blocks   _____

❻ 5 × the rods   _____

5 × the units   _____

5 × all the blocks   _____

Test Prep

❼ What is the perimeter of this square? Explain how you know.

2 centimeters

_____

_____

_____

Multiplying with Arrays

Complete the multiplication sentences to match the arrays. Make the third product equal to the sum of the first two products.

1

5		
$\times$ 10	$\times$ 10	$\times$ 10

2   10   2

| 8 |

10	2	12
$\times$ 8	$\times$ 8	$\times$ 8

3   10   4

| 6 |

10	4	14
$\times$ 6	$\times$ 6	$\times$ 6

4   10   5

| 3 |

10	5	15
$\times$ 3	$\times$ 3	$\times$ 3

Test Prep

5 What number makes the number sentence true?

$500 + \blacksquare + 9 = 569$

A. 50   **B.** 60   **C.** 69   **D.** 90
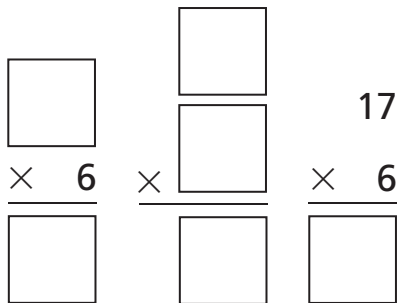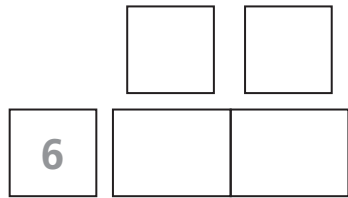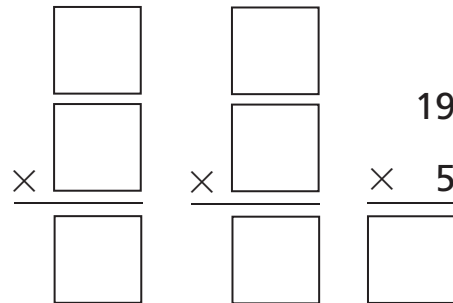
Separating Arrays to Multiply

**Fill in the missing numbers. Imagine or draw
lines and intersections if needed.**

1 17×6

☐ ☐

6	☐

☐
$\times\ 6$
‾‾
☐

☐
☐
$\times$ ☐
‾‾
☐

17
$\times\ 6$
‾‾
☐

2 19×5

☐ ☐

☐ ☐ ☐

☐
☐
$\times$ ☐
‾‾
☐

☐
☐
$\times$ ☐
‾‾
☐

19
$\times\ 5$
‾‾
☐

3 13×8

☐ ☐

☐ ☐ ☐

10
$\times\ 8$
‾‾
☐

3
$\times\ 8$
‾‾
☐

13
$\times\ 8$
‾‾
☐

4 26×4

	20	6
4	80	☐

20
$\times\ 4$
‾‾
☐
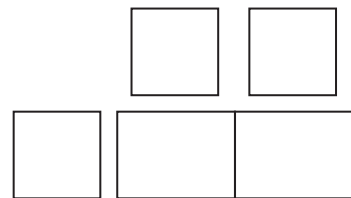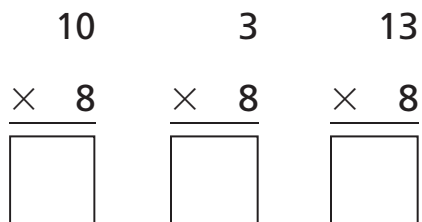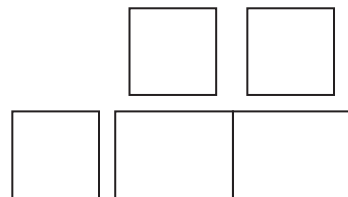
☐
$\times\ 4$
‾‾
☐

26
$\times\ 4$
‾‾
☐
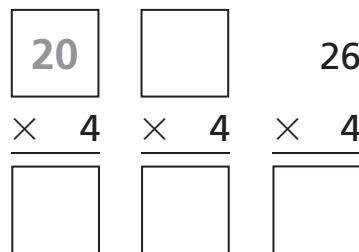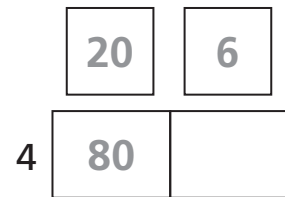
Test Prep

5 What is the next figure in the pattern?

▽ ▢ △ ▢ ▽ ▢ △ ▢

A. △   **C.** ▷

B. ▢   **D.** ▽

Multiplying with Larger Numbers

Use the diagram to help you find the product.

1

	10	7
10	100	70
3	☐	☐

$17 \times 13 =$ ☐

2

	10	6
10	☐	☐
6	☐	☐

$16 \times 16 =$ ☐

3

	20	4
10	☐	☐
2	☐	☐

$24 \times 12 =$ ☐

4

	20	1
20	☐	☐
7	☐	☐

$21 \times 27 =$ ☐

Test Prep

5 Latoya tosses two cubes numbered 1 through 6.
She adds the numbers. Which is more likely?
She will get a sum greater than 10 or a sum 10
or less? Explain how you know.

_____

_____

_____

Finding Missing Factors

Complete the diagram and the multiplication sentences.

1 $16 \times 8 = \boxed{}$

```
         16
  10   6      × 8
8 | 80 |  |   ____
              |  |
```

2 $13 \times 9 = \boxed{}$

```
           13
      3        × 9
9 |  | 27 |    ____
              |  |
```

3 $\boxed{} \times 4 = 92$

```
          23
        × 4
4 |  |  | ____
          92
```

4 $\boxed{} \times 9 = 243$

```
        |  |
        × 9
9 |  |  | ____
        |  |
```

5 $\boxed{} \times 6 = 210$

```
        |  |
        × 6
|  |  | ____
        |  |
```

6 $\boxed{} \times 5 = 165$

```
        |  |
        × 5
|  |  | ____
        165
```

Test Prep

7 Amber has a box of 7 red, 22 green, 10 yellow, and 2 blue paper clips. If she pulls a paper clip out of the box without looking, what color would it most likely be?

A. red   **B.** green   **C.** yellow   **D.** blue

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Division

Solve the division problem. Use the rectangles if you wish.

1 $54 \div 3 = \boxed{}$

	10	$\boxed{}$
3		

2 $65 \div 5 = \boxed{}$

3 $84 \div 4 = \boxed{}$

4 $98 \div 7 = \boxed{}$

5 $68 \div 4 = \boxed{}$

6 $95 \div 5 = \boxed{}$

Test Prep

7 Which number sentence belongs to the same fact family as this number sentence?

$9 \times 12 = 108$

A. $108 - 9 = 99$ **C.** $9 + 12 = 21$

B. $108 - 12 = 96$ **D.** $12 \times 9 = 108$