Multiplication and Addition

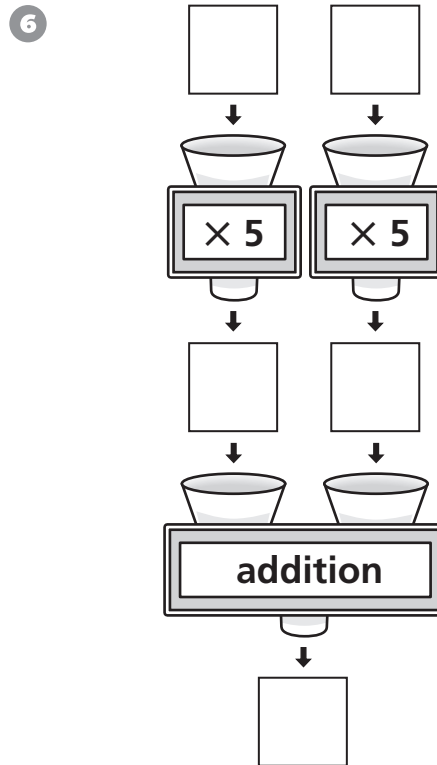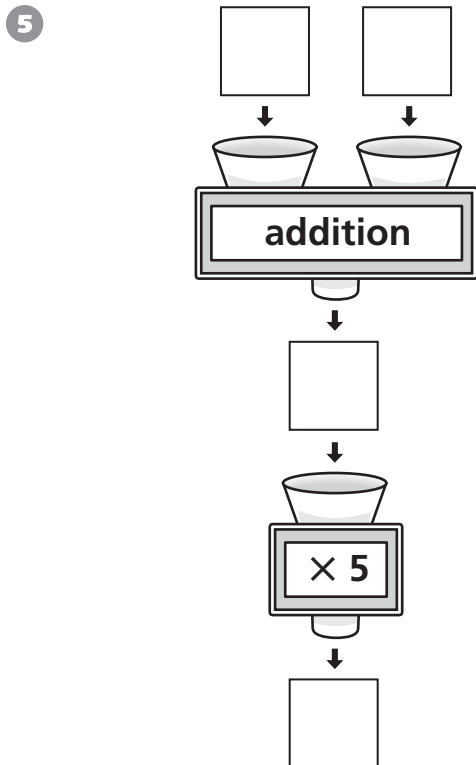**Find the costs.**

1 Cost of 5 cars   30¢

Cost of 5 trains   _____

Cost of 5 of each item   90¢

What is the cost of
1 car and 1 train?   _____

2 Cost of 7 hats $7.00

Cost of 7 bows   _____

Cost of 7 of each item $8.05

What is the cost of
1 hat and 1 bow?   _____

3 Cost of 3 pencils   12¢

Cost of 6 pens   60¢

Cost of 6 of each item _____

4 Cost of 4 pencils   28¢

Cost of 8 pens $1.20

Cost of 4 of each item _____

Show $(8 + 3) \times 5 = (8 \times 5) + (3 \times 5)$ using the machines below.

5

addition

$\times 5$

6

$\times 5$ $\times 5$

addition

Using Sums to Multiply

Make the third product equal to the sum of the first two products.

1

20	7	27
× 4	× 4	× 4
80	☐	☐

2

☐	☐	31
× 8	× 8	× 8
☐	☐	☐

3

☐	☐	17
× 3	× 3	× 3
☐	21	51

4

☐	☐	☐
× 6	× 6	× 6
180	☐	204

5

30	6	36
× ☐	× ☐	× ☐
120	☐	144

6

20	7	27
× ☐	× ☐	× ☐
☐	☐	162

7

☐	☐	☐
× 4	× 4	× 4
☐	24	184

8

☐	☐	☐
× 7	× 7	× 7
☐	☐	245

Multiplying with Base-Ten Blocks

Complete the tables.

1

a	4	10	14
6 × a			

$+$

a	4	10	14
10 × a			

$=$

a	4	10	14
16 × a			

2

b	8	10	18
7 × b			

$+$

b	8	10	18
10 × b			

$=$

b	8	10	18
17 × b			

3

c	5	10	15
8 × c			

$+$

c	5	10	15
10 × c			

$=$

c	5	10	15
18 × c			

Multiplying with Arrays

1 19 × 10 = (10 × 10) + (9 × 10) = ☐ + ☐ = ☐

2 13 × 10 = (☐ × 10) + (☐ × 10) = ☐ + ☐ = ☐

3 15 × 10 = (☐ × 10) + (☐ × 10) = ☐ + ☐ = ☐

4 17 × 10 = ☐

5 10 × 4 = ☐

6 10 × 9 = ☐

7 12 × 10 = ☐

8 25 × 10 = ☐

9 36 × 10 = ☐

10 47 × 10 = ☐

11 10 × 28 = ☐

Separating Arrays to Multiply

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

1   18 × 6

6	60	48

$$\begin{array}{r} 18 \\ \times\ 6 \\ \hline \end{array}$$

2   37 × 4

4		

$$\begin{array}{r} 37 \\ \times\ 4 \\ \hline \end{array}$$

3   71 × 8

$$\begin{array}{r} 71 \\ \times\ 8 \\ \hline \end{array}$$

4   24 × 9

$$\begin{array}{r} 24 \\ \times\ 9 \\ \hline \end{array}$$

5   32 × 7

$$\begin{array}{r} 32 \\ \times\ 7 \\ \hline \end{array}$$

6   37 × 8

$$\begin{array}{r} 37 \\ \times\ 8 \\ \hline \end{array}$$

Multiplying with Larger Numbers

Fill in the missing numbers. Imagine or draw the diagrams if needed.

1 27 × 13 = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

2 19 × 25 = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

3 31 × 19 = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

4 12 × 34 = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

Finding Missing Factors

Complete the multiplication sentences. You may imagine or draw the diagrams if you wish.

① $29 \times \boxed{} = 87$

20	9	29
$\times \boxed{}$	$\times \boxed{}$	$\times \boxed{}$
$\boxed{}$	$\boxed{}$	$\boxed{}$

② $\boxed{} \times 7 = 112$

$\boxed{}$ $\boxed{}$ $\boxed{}$
$\times \; 7$ $\times \; 7$ $\times \; 7$
$\boxed{}$ $\boxed{}$ 112

③ $\boxed{} \times 4 = 76$

④ $24 \times \boxed{} = 192$

⑤ $\boxed{} \times 6 = 132$

⑥ $15 \times \boxed{} = 105$

Division
Missing Factor

Describe how you might complete the following multiplication problem so that another student could understand your steps.

$$\begin{array}{r} \boxed{} \\ \times \quad 4 \\ \hline 132 \end{array}$$

_____

_____

_____

_____

_____

_____

_____

_____