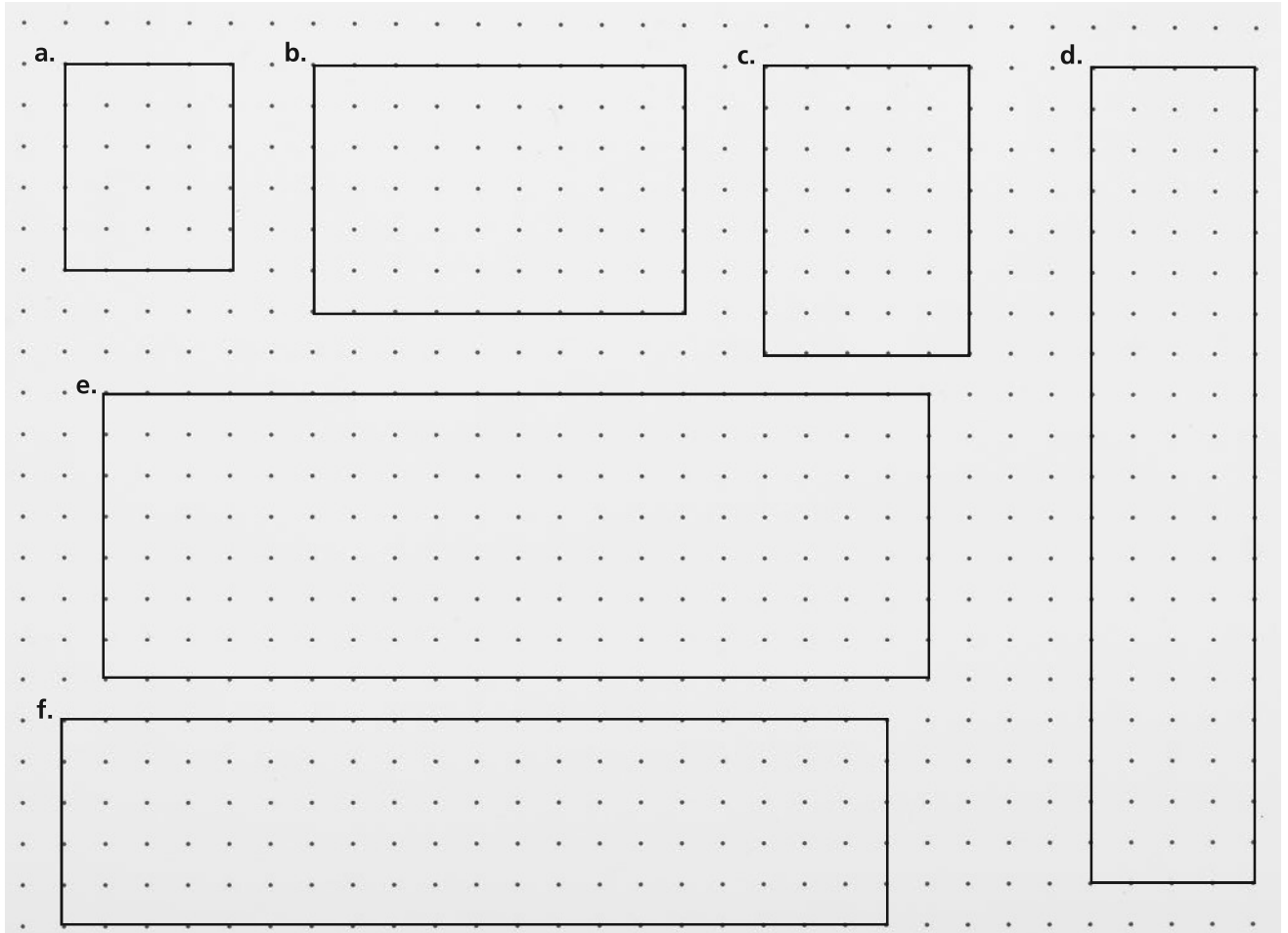


2-1 Homework

Name _____

Date _____

1 Label the sides of each rectangle.



2 Write the equation representing the area of each rectangle shown above.

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

Find the area (in square units) of a rectangle with the given dimensions.

3 3×5 _____

4 3×50 _____

5 30×5 _____

Read and write each number in expanded form.

1 71 _____

2 298 _____

3 5,627 _____

4 3,054 _____

Read and write each number in standard form.

5 $500 + 80 + 3$

6 $9,000 + 200 + 40 + 1$

7 eight hundred seventeen

8 one thousand, six hundred forty-six

Read and write each number in word form.

9 $90 + 7$ _____

10 $300 + 10 + 2$ _____

11 $4,000 + 100 + 80 + 5$ _____

12 $8,000 + 700 + 6$ _____

- 13 **Stretch Your Thinking** Emmy planted onion bulbs in her backyard garden, giving each bulb one square foot of space. She arranged the onion bulbs in a rectangular array of 4 rows with 5 in each row. Make a sketch of Emmy's onion patch. How many onion bulbs did she plant? What is the area of the onion patch? Identify three other rectangular arrangements Emmy could have used to plant these onion bulbs.



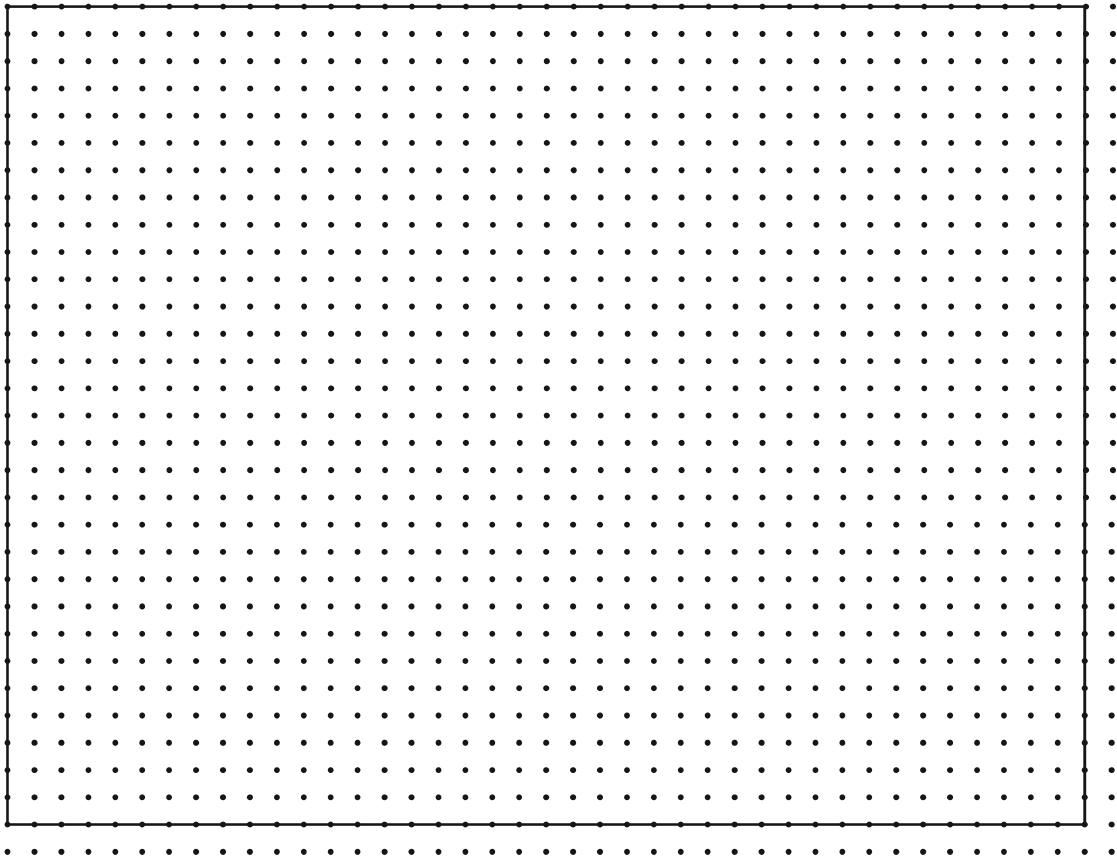
Solve each problem.

1 $10 \times \underline{\hspace{2cm}} = 3 \text{ tens}$

2 $10 \times 6 \text{ tens} = \underline{\hspace{2cm}}$

Follow the directions.

- 3 Divide the 30×40 rectangle into 10-by-10 squares of 100 to help find the area.



- 4 Complete the steps to factor the tens.

$$30 \times 40 = (\underline{\hspace{2cm}} \times 10) \times (\underline{\hspace{2cm}} \times 10)$$

$$= (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) \times (10 \times 10)$$

$$= \underline{\hspace{2cm}} \times 100$$

$$= \underline{\hspace{2cm}}$$

- 5 What is the area of the 30×40 rectangle, in square units?

Write the number of thousands and the number of hundreds in each number.

① 4,672

_____ thousands

_____ hundreds

② 1,023

_____ thousands

_____ hundreds

③ 610

_____ thousands

_____ hundreds

Read and write each number in expanded form.

④ twenty-five thousand, three hundred fifty-one

⑤ five hundred six thousand, five hundred ninety-eight

⑥ nine hundred thirteen thousand, eight hundred twenty-seven

Find the area (in square units) of a rectangle with the given dimensions.

⑦ 4×6 _____

⑧ 4×60 _____

⑨ 9×2 _____

⑩ 90×2 _____

⑪ 3×7 _____

⑫ 70×3 _____

⑬ **Stretch Your Thinking** Li is using place value to multiply 90×30 .

$$\begin{aligned} 90 \times 30 &= (9 \times 10) \times (3 \times 10) \\ &= (9 \times 3) \times (10 \times 10) \\ &= 27 \times 10 \\ &= 270 \end{aligned}$$

Is Li's answer correct? Explain.

Find each product by factoring the tens. Draw rectangles if you need to.

① 6×2 , 6×20 , and 6×200

② 4×8 , 4×80 , and 4×800

③ 5×5 , 5×50 , and 5×500

④ 5×9 , 50×9 , and 500×9

⑤ 6×5 , 60×5 , and 60×50

⑥ 7×6 , 70×6 , and 70×60

On a sheet of grid paper, draw two different arrays of connected squares for each total. Label the sides and write the multiplication equation for each of your arrays.

⑦ 18 squares

⑧ 20 squares

⑨ 24 squares

Add or subtract.

$$\begin{array}{r} 1 \quad 2,728 \\ + 7,245 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 83,054 \\ + 1,496 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 27,300 \\ - 9,638 \\ \hline \end{array}$$

Use any method to add.

$$\begin{array}{r} 4 \quad 4,335 \\ + 2,694 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 3,806 \\ + 8,129 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 6,401 \\ + 7,763 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \quad 9,826 \\ + 8,531 \\ \hline \end{array}$$

Solve each problem.

$$8 \quad 10 \times \underline{\hspace{2cm}} = 6 \text{ tens}$$

$$9 \quad 10 \times 9 = \underline{\hspace{2cm}}$$

$$10 \quad \underline{\hspace{2cm}} \times 10 = 2 \text{ tens}$$

$$11 \quad \underline{\hspace{2cm}} \times 10 = 5 \text{ tens}$$

$$12 \quad 10 \times 4 \text{ tens} = \underline{\hspace{2cm}}$$

$$13 \quad 10 \times \underline{\hspace{2cm}} = 7 \text{ hundreds}$$

$$14 \quad 10 \times \underline{\hspace{2cm}} = 8 \text{ tens}$$

$$15 \quad \underline{\hspace{2cm}} \times 10 = 3 \text{ tens}$$

- 16 Stretch Your Thinking** Lucas says that since 40×70 and 60×50 both have factors with a total of two zeros, they will both have products with a total of two zeros. Is he correct? Explain.

Draw a rectangle. Find the tens product, the ones product, and the total product. The first one is done for you.

① 5×39

39 = 30 + 9

5	$5 \times 30 = 150$	$5 \times 9 = 45$	$\begin{array}{r} 150 \\ + 45 \\ \hline 195 \end{array}$
---	---------------------	-------------------	--

② 7×32

③ 9×54

④ 3×47

Solve each problem.

Show your work.

- ⑤ Maria's flower garden is 14 feet long and 3 feet wide. How many square feet is her garden?

- ⑥ Maria planted 15 trays of flowers. Each tray had 6 flowers in it. How many flowers did she plant?

- ⑦ Write and solve a multiplication word problem about your family.

Round each number to the nearest hundred.

1 283 _____

2 729 _____

3 954 _____

Round each number to the nearest thousand.

4 4,092 _____

5 6,550 _____

6 5,381 _____

Compare using $>$, $<$, or $=$.

7 $92,800$ _____ $92,830$

8 $165,000$ _____ $156,000$

9 $478,390$ _____ $478,390$

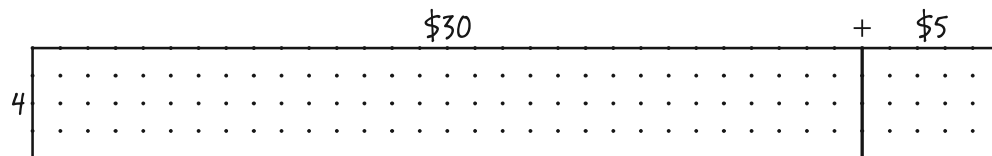
10 $736,218$ _____ $89,479$

Find each product by factoring the tens. Draw rectangles if you need to.

11 3×2 , 3×20 , and 3×200

12 7×3 , 7×30 , and 7×300

13 **Stretch Your Thinking** Write a word problem that could be solved using the rectangle model shown. Then solve the problem by finding the tens product, the ones product, and the total product.



2-5
Homework

Name _____

Date _____

Estimate each product. Solve to check your estimate.

1 4×26

2 5×63

3 7×95

4 4×84

5 2×92

6 3×76

Estimate the answers. Then solve each problem.

Show your work.

- 7 The Bicycling Club is participating in a cycling event. There are 65 teams registered for the event. Each team has a total of 8 cyclists. How many cyclists will participate in the event?

- 8 The theater group is making costumes for their play. There are 9 costume changes for each of the 23 performers. How many costumes does the theater group need?

- 9 The town library shows 6 different books each day in the display case. The library is open 27 days in one month. How many books does the library need for the display?

Write and solve a multiplication word problem.

- 10 _____

Estimate each sum. Then solve to check your estimate.

1 $288 + 609$ _____

Solve.

Show your work.

- 2 During one weekend, a museum had 7,850 visitors on Saturday and 5,759 visitors on Sunday.

About how many visitors were there that weekend?

Exactly how many visitors were there that weekend?

Draw a rectangle model. Find the tens product, the ones product, and the total product.

3 7×42

4 5×67

- 5 **Stretch Your Thinking** Marcia says she can use *rounding* to find the exact product of 6×75 . She says that since 75 is halfway between 7 tens and 8 tens, the exact product of 6×75 must be halfway between 6×70 and 6×80 . Is she correct? Explain.

Use the Place Value Sections Method to solve the problem. Complete the steps.

1 9×86 _____

86 = 80 + 6

9	\times	_____	=	_____
_____	\times	_____	=	_____

9	\times	_____	=	_____
_____	\times	_____	=	_____

+	_____
+	_____

Use the Expanded Notation Method to solve the problem. Complete the steps.

2 4×67 _____

67 = 60 + 7

4	\times	_____	=	_____
_____	\times	_____	=	_____

67 =	_____	+	_____	
\times	4 =	_____	_____	
_____	\times	_____	=	_____
_____	\times	_____	=	_____

Use any method to solve. Draw a rectangular model to represent the problem.

Show your work.

- 3 Natalia read her new book for 45 minutes each day for one week. How many minutes did she read after 7 days?

The table shows the approximate height of the world's five tallest mountain peaks. Use the data in the table to help answer the following questions.

- 1 How tall are the two tallest mountain peaks combined?

- 2 Which two mountain peaks combined are 56,190 feet tall?

Mountain	Height (in feet)
Everest	29,035
K2	28,250
Kangchenjunga	28,169
Lhotse	27,940
Makalu	27,766

Subtract.

3 $586,720 - 293,415 =$ _____

4 $917,336 - 904,582 =$ _____

Estimate each product. Solve to check your estimate.

5 5×39

6 6×64

7 9×23

8 7×48

- 9 **Stretch Your Thinking** Explain how the Expanded Notation Method is used to multiply 82×3 .

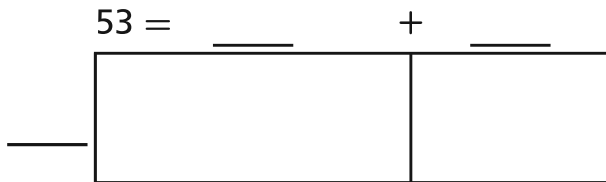
2-7
Homework

Name _____

Date _____

Use the Algebraic Notation Method to solve each problem. Complete the steps.

1 $7 \cdot 53$ _____



$$\begin{aligned} 7 \cdot 53 &= \text{_____} \cdot (\text{_____} + \text{_____}) \\ &= 350 + 21 \\ &= 371 \end{aligned}$$

2 $4 \cdot 38$ _____



$$\begin{aligned} 4 \cdot 38 &= \text{_____} \cdot (\text{_____} + \text{_____}) \\ &= \text{_____} + \text{_____} \\ &= \text{_____} \end{aligned}$$

Draw an area model and use the Algebraic Notation Method to solve the problem.

Show your work.

- 3 Mr. Henderson needs to get plywood to build his flatbed trailer. The flatbed is 8 feet by 45 feet. What is the area of the flatbed Mr. Henderson needs to cover with plywood?
- _____

Subtract. Show your new groups.

$$\begin{array}{r} 1 \quad 4,000 \\ - 1,946 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 8,441 \\ - 7,395 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 9,340 \\ - 8,614 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 1,587 \\ - 1,200 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 6,193 \\ - 3,295 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 4,006 \\ - 2,631 \\ \hline \end{array}$$

Use the Expanded Notation Method to solve the problem.
Complete the steps.

$$7 \quad 5 \times 68 \quad \underline{\hspace{2cm}}$$

- 8 **Stretch Your Thinking** Jenna made 6 bracelets using 32 beads each. Kayla made 7 bracelets using 29 beads each. Who used more beads? Use the Distributive Property to solve the problem.

Use any method to solve. Sketch a rectangle model, if you need to.

1 7×62 _____

2 6×63 _____

3 6×82 _____

4 57×7 _____

5 5×76 _____

6 4×65 _____

7 7×83 _____

8 36×9 _____

9 27×8 _____

Solve each problem.

Show your work.

- 10 94 people are sitting down to a fancy six-course meal. The first course is soup, which only needs a spoon. The rest of the courses each need fresh forks. How many forks will be used?

- 11 Leo uses plastic letters to make signs. A chain store asks Leo to put signs in front of their 63 stores that say "SALE: HALF PRICE ON ALL DRESSES." How many plastic "S" letters will Leo need?

Subtract. Then use addition to check the subtraction.

Show your work.

① $6,459 - 921 =$ _____

Check: _____

② $5,603 - 3,284 =$ _____

Check: _____

③ $7,863 - 2,734 =$ _____

Check: _____

④ $9,582 - 1,447 =$ _____

Check: _____

Use the Algebraic Notation Method to solve each problem.

Complete the steps.

⑤ $4 \cdot 93$ _____

⑥ $3 \cdot 78$ _____

- ⑦ **Stretch Your Thinking** Xander says that the Place Value Sections Method, the Expanded Notation Method, and the Algebraic Notation Method of multiplying a one-digit number by a two-digit number are pretty much the same. Do you agree or disagree? Explain.

Solve, using any numerical method. Use rounding and estimating to see if your answer makes sense.

$$\begin{array}{r} \textcircled{1} \quad 35 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{2} \quad 79 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{3} \quad 56 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad 94 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{5} \quad 68 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{6} \quad 27 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{7} \quad 82 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{8} \quad 43 \\ \times 7 \\ \hline \end{array}$$

Solve each problem.

Show your work.

- 9** Describe how you solved one of the exercises above. Write at least two sentences.

- 10** Mariko wrote the full alphabet (26 letters) 9 times. How many letters did she write?

- 11** Alan has 17 packs of bulletin-board cutouts. Each one contains 9 shapes. How many shapes does he have altogether?

Add or subtract.

$$\begin{array}{r} 1 \quad 6,095 \\ + 2,382 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 53,894 \\ - 12,914 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 629,137 \\ - 508,978 \\ \hline \end{array}$$

Solve each problem.

Show your work.

- 4 During the first half of a college basketball game, 24,196 people entered the athletic center. During the second half, 2,914 people left and 4,819 people entered. How many people were in the athletic center at the end of the game?

- 5 Miles had three sets of building blocks. His first set had 491 pieces. His second set had 624 pieces. Miles combined his three sets for a total of 1,374 pieces. How many pieces had been in his third set?

Use any method to solve. Sketch a rectangle model if you need to.

6 6×23 _____

7 8×44 _____

8 3×95 _____

- 9 **Stretch Your Thinking** A bookcase has 3 shelves with 38 books each and 4 shelves with 29 books each. How many books are in the bookcase? Use any method to solve. Show your work.

Sketch rectangles and solve by any method that relates to your sketch.

1 3×687 _____

2 8×572 _____

3 5×919 _____

4 6×458 _____

- 5 A parking garage charges \$5 per vehicle to park. The garage has 327 spaces for vehicles. If the garage is full, how much money does garage make?

Show your work.

- 6 Susie's car can go about 342 miles on one tank of gasoline. She has filled her tank 4 times this month. About how many miles did Susie travel this month?

- 7 Zach filled his albums with 134 pages of trading cards. Each page holds 9 trading cards. How many trading cards does Zach have in his albums?

- 8 Write and solve a multiplication word problem involving a three-digit number.

Answer each question about the information in the table.

- 1 What is the combined population of Midborough and Bigville?
- _____

- 2 How many more people live in Superburg than in Smalltown?
- _____

Population of Five Cities	
Smalltown	38,346
Midborough	49,725
Centerville	79,086
Bigville	123,267
Superburg	184,903

Use any method to solve. Sketch a rectangle model, if you need to.

- 3 $3 \times 91 =$ _____ 4 $7 \times 65 =$ _____ 5 $6 \times 84 =$ _____

Solve using any numerical method. Use rounding and estimating to see if your answer makes sense.

6
$$\begin{array}{r} 45 \\ \times 7 \\ \hline \end{array}$$

7
$$\begin{array}{r} 28 \\ \times 9 \\ \hline \end{array}$$

8
$$\begin{array}{r} 81 \\ \times 7 \\ \hline \end{array}$$

9
$$\begin{array}{r} 56 \\ \times 3 \\ \hline \end{array}$$

- 10 **Stretch Your Thinking** Whether using the Place Value Sections Method, the Expanded Notation Method, or the Algebraic Notation Method, the same basic steps can be used to multiply a one-digit number by a three-digit number. Put these steps in order by numbering 1 through 3.

_____ Add the partial products.

_____ Write the three-digit number in expanded form.

_____ Multiply the one-digit number by each of the values in expanded form.