

Student Activity Book

Counting Squares

Questions 1–2 (SAB pp. 465–466)

1.* 252 squares

See Figures 3–5 in the lesson.

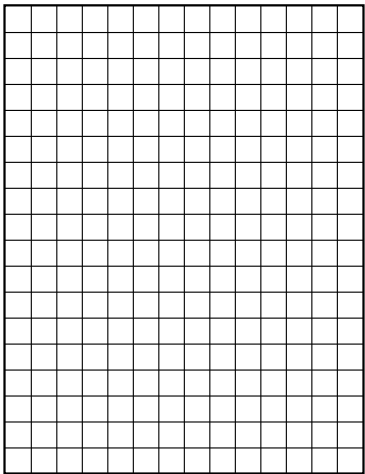
2.* 414 squares

See Figure 6 in the lesson.

Name _____ Date _____

Counting Squares

1. How many small squares are in the large rectangle below? Show or tell how you found your answer.



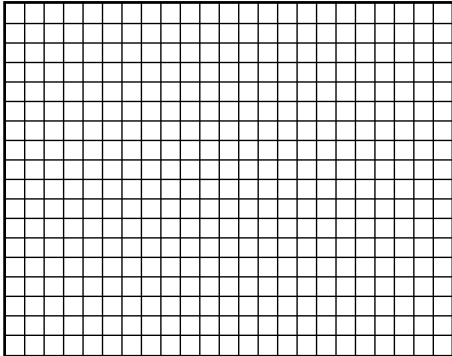
Copyright © Kendall Hunt Publishing Company

From the Fish Hatchery SAB • Grade 4 • Unit 11 • Lesson 1 465

Student Activity Book - Page 465

Name _____ Date _____

2. How many small squares are in the large rectangle below? Solve the problem a different way from the way you solved the problem in Question 1. Show or tell how you found your answer.



Copyright © Kendall Hunt Publishing Company

466 SAB • Grade 4 • Unit 11 • Lesson 1 From the Fish Hatchery

Student Activity Book - Page 466

*Answers and/or discussion are included in the lesson.

Name _____ Date _____

Multiplying with Rectangles

Complete the rectangles for each multiplication problem. Then solve. The first one is an example. Estimate to see if your answer is reasonable.

Example
 $14 \times 32 = 448$

	30	2	
10	$10 \times 30 = 300$	$10 \times 2 = 20$	$\begin{array}{r} 300 \\ 120 \\ 20 \\ \hline + 8 \\ \hline 448 \end{array}$
4	$4 \times 30 = 120$	$4 \times 2 = 8$	

1. $17 \times 25 = \underline{\hspace{2cm}}$

	20	5	
10	$10 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$	$10 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$	
7	$7 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$	$7 \times 5 = \underline{\hspace{1cm}}$	

Copyright © Kendall Hunt Publishing Company

From the Fish Hatchery SAB • Grade 4 • Unit 11 • Lesson 1 467

Student Activity Book - Page 467

Multiplying with Rectangles

Questions 1–9 (SAB pp. 467–470)

A rectangle is shown for 1.

	20	5	
10	$10 \times \underline{20} = \underline{200}$	$10 \times \underline{5} = \underline{50}$	$\begin{array}{r} 200 \\ 50 \\ 140 \\ \hline + 35 \\ \hline 425 \end{array}$
<u>7</u>	$7 \times \underline{20} = \underline{140}$	$7 \times 5 = \underline{35}$	

1. 425
2. 1664
3. 2808

Name _____ Date _____

2. $26 \times 64 = \underline{\hspace{2cm}}$

	60	4	
20			
6			

3. $39 \times 72 = \underline{\hspace{2cm}}$

Copyright © Kendall Hunt Publishing Company

468 SAB • Grade 4 • Unit 11 • Lesson 1 From the Fish Hatchery

Student Activity Book - Page 468

- 4. 2538
- 5. 2822
- 6. 1748
- 7. 1936
- 8. 2581
- 9. Possible estimation strategy: $30 \times 90 = 2700$;
Since I rounded both numbers up, the exact
answer will be less. So 2581 makes sense.

Name _____ Date _____

For Questions 4–9, sketch your own rectangles to represent each problem.

4. $54 \times 47 =$ _____

5. $34 \times 83 =$ _____

6. $92 \times 19 =$ _____

Copyright © Kendall Hunt Publishing Company

From the Fish Hatchery SAB • Grade 4 • Unit 11 • Lesson 1 469

Student Activity Book - Page 469

Name _____ Date _____

7. $44 \times 44 =$ _____

8. $29 \times 89 =$ _____

9. Show or tell how you know your answer to Question 8 is reasonable.

Copyright © Kendall Hunt Publishing Company

470 SAB • Grade 4 • Unit 11 • Lesson 1 From the Fish Hatchery

Student Activity Book - Page 470

Name _____ Date _____

Drawing Rectangles

Use Grace's rectangle method to solve these problems. For Questions 3-4, you will have to draw your own rectangle. Estimate to see if your answers are reasonable.

1. $48 \times 21 =$

	20	1
40	$40 \times 20 =$ <input type="text"/>	$40 \times 1 =$ <input type="text"/>
8	$8 \times 20 =$ <input type="text"/>	$8 \times 1 =$ <input type="text"/>

Copyright © Kendall Hunt Publishing Company

Show or tell how you know your answer is reasonable.

From the Fish Hatchery SAB • Grade 4 • Unit 11 • Lesson 1 471

Student Activity Book - Page 471

Name _____ Date _____

2. 33×15

3. 36×24

4. 52×19

Copyright © Kendall Hunt Publishing Company

472 SAB • Grade 4 • Unit 11 • Lesson 1 From the Fish Hatchery

Student Activity Book - Page 472

Student Activity Book

Drawing Rectangles

Questions 1-4 (SAB pp. 471-472)

A rectangle is shown for 48×21 .

	20	1	
40	$40 \times 20 =$ <input type="text" value="800"/>	$40 \times 1 =$ <input type="text" value="40"/>	800 40
8	$8 \times 20 =$ <input type="text" value="160"/>	$8 \times 1 =$ <input type="text" value="8"/>	160 <u>+ 8</u> 1008

Possible estimation strategy: $50 \times 20 = 1000$;
1008 is close

1. 1008
2. 495

	10	5	
30	$30 \times 10 =$ <input type="text" value="300"/>	$30 \times 5 =$ <input type="text" value="150"/>	300 150
3	$3 \times 10 =$ <input type="text" value="30"/>	$3 \times 5 =$ <input type="text" value="15"/>	30 <u>+ 15</u> 495

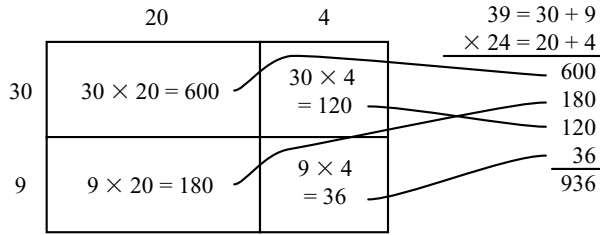
3. 864
4. 988

Student Activity Book

Solving Multiplication Problems

Questions 1–4 (SAB pp. 473–475)

1. rectangle expanded form



$600 + 180 + 120 + 36 = 936$

Name _____ Date _____

Solving Multiplication Problems

✓ Check-In: Questions 1-4

Solve the following problems. You may use the *Half-Centimeter Grid Paper* that follows Question 4.

1. Solve 39×24 using the rectangle method and the expanded-form method. Draw lines connecting the matching partial products in the two methods. For example, if you have a partial product of 200 in both methods, draw a line connecting the 200 in the rectangle with the 200 in the expanded-form.

rectangle method

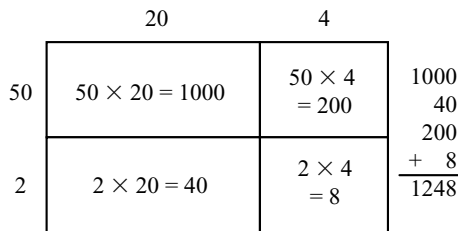
expanded-form method

Copyright © Kendall Hunt Publishing Company

From the Fish Hatchery SAB • Grade 4 • Unit 11 • Lesson 1 473

Student Activity Book - Page 473

2. A.



B. She multiplied 50×20 and got 100, but the correct answer is 1000.

Name _____ Date _____

2. Linda solved 52×24 using expanded form:

$$\begin{array}{r} 52 = 50 + 2 \\ \times 24 = 20 + 4 \\ \hline 100 \leftarrow 50 \times 20 \\ 200 \leftarrow 50 \times 4 \\ 40 \leftarrow 2 \times 20 \\ + 8 \leftarrow 2 \times 4 \\ \hline 348 \end{array}$$

A. Check Linda's answer by solving 52×24 using the rectangle method.

B. What mistake did Linda make in solving the problem? Use your rectangle to help explain your answer.

Copyright © Kendall Hunt Publishing Company

474 SAB • Grade 4 • Unit 11 • Lesson 1 From the Fish Hatchery

Student Activity Book - Page 474

Name _____ Date _____

3. Show or tell how you solve each of the following problems. Solve one problem using expanded form, solve one problem using a rectangle, and solve one problem using mental math.

- A. 31×54 B. 25×30 C. 29×15

4. Show or tell how you know your answer to Question 3A is reasonable.

**Solving Multiplication Problems
Check-In: Q# 1-4 Feedback Box**

Copyright © Kendall Hunt Publishing Company

	Expectation	Check In	Comments
Show understanding of place value concepts by breaking factors into tens and ones and then multiply the partial products. [Q# 1]	E1		
Show connections between using rectangles and expanded form. [Q# 1-2]	E2		
Estimate products of multidigit numbers using multiples of ten and convenient numbers. [Q# 4]	E3		
Use the rectangle method and expanded form to multiply 2-digit numbers. [Q# 1-3]	E4		
Choose appropriately from among paper-and-pencil methods and mental math to multiply multidigit numbers. [Q# 3]	E6		

From the Fish Hatchery

SAB • Grade 4 • Unit 11 • Lesson 1 475

$$\begin{array}{r}
 3. \text{ A. } 1674; \quad 29 \quad 29 + 9 \\
 \quad \quad \quad + 15 = \quad 10 + 9 \\
 \quad \quad \quad \quad \quad \quad 200 \leftarrow 20 \times 10 \\
 \quad \quad \quad \quad \quad \quad 100 \leftarrow 20 \times 5 \\
 \quad \quad \quad \quad \quad \quad 90 \leftarrow 10 \times 9 \\
 \quad \quad \quad \quad \quad + 45 \leftarrow 5 \times 9 \\
 \quad \quad \quad \quad \quad \hline
 \quad \quad \quad \quad \quad 435
 \end{array}$$

B. 750; Possible strategy $25 \times 3 = 75$;
 $75 \times 10 = 750$

C. 435; Possible solution:

	10	5	
20	$20 \times 10 = 200$	$20 \times 5 = 100$	200 90 100
9	$9 \times 10 = 90$	$9 \times 5 = 45$	$+ 45$ <hr style="width: 50px; margin: 0;"/> 435

4. Possible estimation strategy for Question 3A:
 $30 \times 50 = 1500$; since I rounded both numbers down, the exact answer will be greater than 1500. So 1674 makes sense.