

Homework & Practice 3-6

Use Partial Products to Multiply by 1-Digit Numbers

Another Look!

Three groups of 145 students attended the play.
How many students attended the play?

Find 3×145 .

Record the partial products.

$$\begin{array}{r}
 145 \\
 \times 3 \\
 \hline
 15 \quad 3 \times 5 \\
 120 \quad 3 \times 40 \\
 + 300 \quad 3 \times 100 \\
 \hline
 435
 \end{array}$$

435 students attended the play.

You can use an algorithm to record the partial products when multiplying.



For **1–16**, find each product using an algorithm. Draw pictures, use arrays, or area models if needed. Check if your answer is reasonable.

1.
$$\begin{array}{r} 275 \\ \times 6 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 164 \\ \times 5 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 317 \\ \times 9 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 3,933 \\ \times 4 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 15 \\ \times 8 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 137 \\ \times 4 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 1,619 \\ \times 7 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 4,269 \\ \times 5 \\ \hline \end{array}$$

9. 7×64

10. 96×3

11. 531×8

12. $5 \times 2,111$

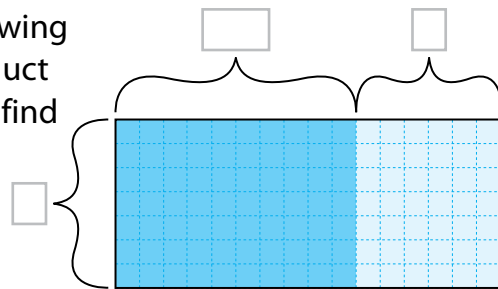
13. 62×9

14. 217×4

15. 119×3

16. $1,231 \times 2$

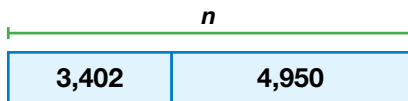
17. **MP.4 Model with Math** Complete the model showing how to use the Distributive Property to find the product of 7 and 16. Then write an equation showing how to find the product using the Distributive Property.



18. Fred's Auto Sales purchases 3 new vehicles for \$11,219, \$31,611, and \$18,204. What was the total cost for all the vehicles?

19. Kinsey earns \$54,625 a year. She purchases a snowmobile for \$12,005. How much of Kinsey's yearly earnings does she have left?

20. **Number Sense** Dalton added $3,402 + 4,950$ to get 8,352. Estimate the sum by rounding the addends to the nearest hundred. Is Dalton's sum reasonable? Explain.



21. **Higher Order Thinking** Josh used an algorithm to find the product for 9×239 . His work is shown below. Is Josh's work correct? Explain.

$$\begin{array}{r} 239 \\ \times \quad 9 \\ \hline 1,800 \\ 270 \\ + \quad 81 \\ \hline 2,151 \end{array}$$

Common Core Assessment

22. DeShawn fuels 2 yachts and 6 barges. Each boat gets 126 gallons of fuel. To find how much fuel he needs for all the boats, DeShawn first finds the number of boats, then he uses an algorithm to multiply. Which are the three partial products DeShawn could add to find the final product?

- 48
- 80
- 160
- 800
- 8,000

Remember, you can add the partial products in any order and the sum will be the same.

