



Additional Practice 3-7

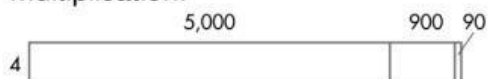
Choose a Strategy to Multiply

Another Look!

Find $4 \times 5,990$.

Estimate: 5,990 is close to 6,000, so the product is close to $4 \times 6,000 = 24,000$.

One way to solve is to use partial products. You can create an area model, a place-value model, or use the Distributive Property of Multiplication.



$$\begin{aligned}
 4 \times 5,990 &= 4 \times (5,000 + 900 + 90) \\
 &= (4 \times 5,000) + (4 \times 900) + (4 \times 90) \\
 &= 20,000 + 3,600 + 360 \\
 &= 23,960
 \end{aligned}$$

Another way to solve is by compensation. Find $4 \times 6,000$ and then adjust the answer by subtracting the product of 4 and 10.

$$\begin{aligned}
 5,990 &= 6,000 - 10 \\
 4 \times 6,000 &= 24,000 \\
 4 \times 10 &= 40 \\
 4 \times 5,990 &= 24,000 - 40 \\
 &= 23,960
 \end{aligned}$$

The product 23,960 is reasonable because it is close to the estimate of 24,000.

For **1–15**, estimate. Then find each product by choosing an appropriate strategy.

Use your estimate to determine if your answer is reasonable.

1.
$$\begin{array}{r} 538 \\ \times 4 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 3,721 \\ \times 7 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 92 \\ \times 4 \\ \hline \end{array}$$

4. 6×505

5. $5 \times 6,384$

6. $7 \times 3,218$

7. $5,219 \times 3$

8. $1,236 \times 8$



9. The animal shelter charges \$119 to adopt a pet. On Saturday, 2 dogs and 7 cats were adopted. How much money did the animal shelter receive from those adoptions?

10. Kamiko and her 4 sisters each have 18 grandchildren. Calculate the total number of grandchildren of Kamiko and her 4 sisters.

11. Over the weekend, 1,719 tickets were sold for a musical. How much money did the musical bring in?



In a multi-step problem, look back to be sure you answered the question asked.