

**LESSON**  
**4•2****The Partial-Quotients Division Algorithm**

Use the partial-quotients algorithm to solve these problems.

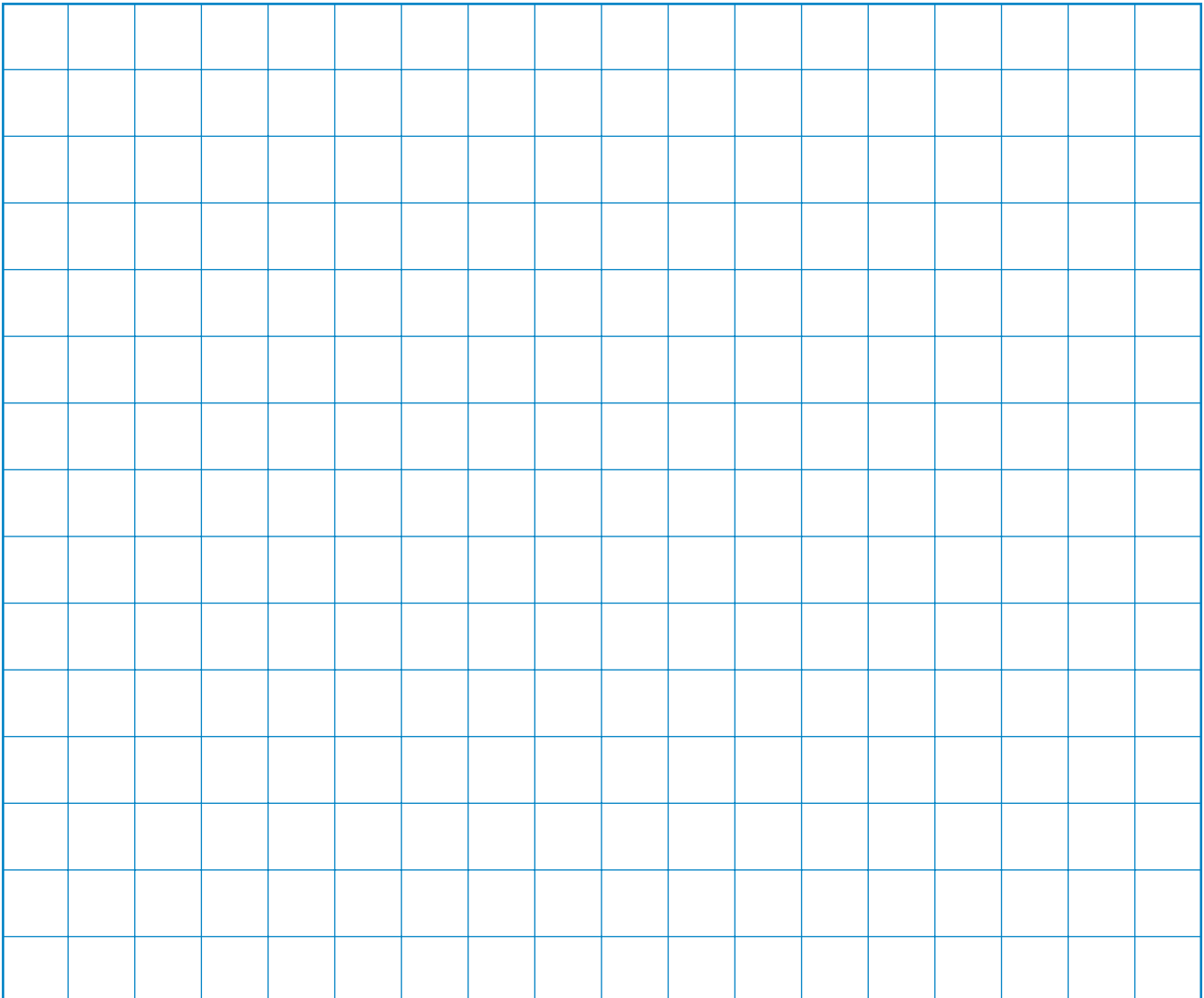
1.  $6\overline{)495}$  \_\_\_\_\_

2.  $832 \div 15 \rightarrow$  \_\_\_\_\_

3.  $3,518 / 32 \rightarrow$  \_\_\_\_\_

4.  $\frac{5,360}{54} \rightarrow$  \_\_\_\_\_

5. Jerry was sorting 389 marbles into bags. He put a dozen in each bag. How many bags does he need? \_\_\_\_\_



**LESSON**  
**4•4**

# The Partial-Quotients Algorithm

**Example:**  $185 \div 8 \rightarrow ?$

**One way:**

$$\begin{array}{r|l} 8 \overline{)185} & \\ -80 & 10 \\ \hline 105 & \\ -80 & 10 \\ \hline 25 & \\ -24 & 3 \\ \hline 1 & 23 \end{array}$$

**Another way:**

$$\begin{array}{r|l} 8 \overline{)185} & \\ -160 & 20 \\ \hline 25 & \\ -24 & 3 \\ \hline 1 & 23 \end{array}$$

**Another way:**

$$\begin{array}{l} 8 \overline{)185} \\ \text{Rename 185 using} \\ \text{multiples of 8:} \\ 160 + 24 + 1 \\ \textit{Think: } 160 = 20 [8\text{s}] \\ 24 = 3 [8\text{s}] \\ 20 + 3 = 23 [8\text{s}] \text{ with} \\ 1 \text{ left over} \end{array}$$

The answer, 23 R1, is the same for each way.

Use the partial-quotients algorithm to solve these problems.

1.  $64 \div 8 = \underline{\hspace{2cm}}$                       2.  $749 \div 7 = \underline{\hspace{2cm}}$   
 3.  $2,628 \div 36 = \underline{\hspace{2cm}}$                       4.  $8,190 \div 9 = \underline{\hspace{2cm}}$

5. Raoul has 237 string bean seeds. He plants them in rows with 8 seeds in each row. How many complete rows can he plant?

Estimate: \_\_\_\_\_

Solution: \_\_\_\_\_ rows

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**LESSON**  
**4•4****The Partial-Quotients Algorithm** *continued*

Divide.

6.  $823 / 3 \rightarrow$  \_\_\_\_\_

7.  $2,815 \div 43 \rightarrow$  \_\_\_\_\_

8.  $4,290 / 64 \rightarrow$  \_\_\_\_\_

9. Regina put 1,610 math books into boxes.  
Each box held 24 books. How many boxes did she use?

Estimate: \_\_\_\_\_

Solution: \_\_\_\_\_ boxes

10. Make up a number story that can be solved with division.  
Solve it using a division algorithm.

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Solution: \_\_\_\_\_

