The Partial-Quotients Division Algorithm

Use the partial-quotients algorithm to solve these problems.

1. \[ \overline{6495} \]

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? 

### Example: 185 / 8 → ?

<table>
<thead>
<tr>
<th>One way:</th>
<th>Another way:</th>
<th>Another way:</th>
</tr>
</thead>
<tbody>
<tr>
<td>8)185</td>
<td>8)185</td>
<td>8)185</td>
</tr>
<tr>
<td>−80 10</td>
<td>−160 20</td>
<td>Rename 185 using</td>
</tr>
<tr>
<td>105</td>
<td>25</td>
<td>multiples of 8:</td>
</tr>
<tr>
<td>−80 10</td>
<td>−24 3</td>
<td>160 + 24 + 1</td>
</tr>
<tr>
<td>25</td>
<td>1 23</td>
<td>Think: 160 = 20 [8s]</td>
</tr>
<tr>
<td>−24 3</td>
<td></td>
<td>24 = 3 [8s]</td>
</tr>
<tr>
<td>1 23</td>
<td></td>
<td>20 + 3 = 23 [8s]</td>
</tr>
</tbody>
</table>

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

Use the partial-quotients algorithm to solve these problems.

1. 64 ÷ 8 = ______
2. 749 / 7 = ______
3. 2,628 ÷ 36 = ______
4. 8,190 / 9 = ______

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
Divide.

6. \(823 \div 3 \rightarrow \) __________

7. \(2,815 \div 43 \rightarrow \) __________

8. \(4,290 \div 64 \rightarrow \) __________

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.
    ______________________________________________________
    ______________________________________________________
    ______________________________________________________
    ______________________________________________________
    Solution: ____________________