Division Strategy: Partial Quotients

Materials: Division equations boards

1. Work with a partner. Choose a line of four problems from the board (horizontally, vertically or diagonally) that you will both solve using the partial quotients algorithm.

   **Step 1:** Write a list of easy facts for the divisor.

   **Step 2:** Subtract from the dividend an easy multiple of the divisor (e.g. x 10, x 100, x 200 etc.) Record the partial quotient in a column to the right of the problem.

   **Step 3:** Repeat until the dividend has been reduced to zero, or the remainder is less than the divisor.

   **Step 4:** Add the partial quotients to find the final quotient.

   **Example:** 3,863 ÷ 16

   **Easy Facts for 16**
   - 10 x 16 = 160
   - 20 x 16 = 320
   - 30 x 16 = 480
   - 100 x 16 = 1,600
   - 200 x 16 = 3,200

3. Check your work with your partner.

4. Repeat with another line of four problems.
<table>
<thead>
<tr>
<th>Expression</th>
<th>Expression</th>
<th>Expression</th>
<th>Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,292 \div 16$</td>
<td>$3,624 \div 17$</td>
<td>$3,155 \div 15$</td>
<td>$2,929 \div 14$</td>
</tr>
<tr>
<td>$6,835 \div 17$</td>
<td>$3,973 \div 13$</td>
<td>$4,836 \div 16$</td>
<td>$3,919 \div 19$</td>
</tr>
<tr>
<td>$4,591 \div 15$</td>
<td>$4,834 \div 16$</td>
<td>$3,828 \div 19$</td>
<td>$4,580 \div 15$</td>
</tr>
<tr>
<td>$4,984 \div 16$</td>
<td>$3,463 \div 34$</td>
<td>$1,831 \div 16$</td>
<td>$3,768 \div 18$</td>
</tr>
</tbody>
</table>