

## Division: The Partial Quotients Method

Use the partial quotients method to solve these division problems. Note: each student's answers should match the answer key, but the path they take to reach it may be different.

**1**

|   |  |  |  |  |    |  |  |   |  |  |   |  |  |   |  |  |
|---|--|--|--|--|----|--|--|---|--|--|---|--|--|---|--|--|
| $\begin{array}{r} 16 \overline{)472} \\ - 160 \\ \hline 312 \\ - 160 \\ \hline 152 \\ - 64 \\ \hline 88 \\ - 64 \\ \hline 24 \\ - 16 \\ \hline 8 \end{array}$ | <table style="border-collapse: collapse;"> <tr><td style="padding-right: 10px;">10</td><td style="padding-right: 10px;"><math>\begin{array}{r} 16 \\ \times 2 \\ \hline 32 \end{array}</math></td><td style="padding-right: 10px;"><math>\begin{array}{r} 16 \\ \times 10 \\ \hline 160 \end{array}</math></td></tr> <tr><td style="padding-right: 10px;">10</td><td style="padding-right: 10px;"><math>\begin{array}{r} 16 \\ \times 4 \\ \hline 64 \end{array}</math></td><td></td></tr> <tr><td style="padding-right: 10px;">4</td><td></td><td></td></tr> <tr><td style="padding-right: 10px;">4</td><td></td><td></td></tr> <tr><td style="padding-right: 10px;">1</td><td></td><td></td></tr> </table> | 10   | $\begin{array}{r} 16 \\ \times 2 \\ \hline 32 \end{array}$ | $\begin{array}{r} 16 \\ \times 10 \\ \hline 160 \end{array}$ | 10 | $\begin{array}{r} 16 \\ \times 4 \\ \hline 64 \end{array}$ |  | 4 |  |  | 4 |  |  | 1 |  |  |
| 10  | $\begin{array}{r} 16 \\ \times 2 \\ \hline 32 \end{array}$   | $\begin{array}{r} 16 \\ \times 10 \\ \hline 160 \end{array}$ |  |  |    |  |  |   |  |  |   |  |  |   |  |  |
| 10  | $\begin{array}{r} 16 \\ \times 4 \\ \hline 64 \end{array}$   |  |  |  |    |  |  |   |  |  |   |  |  |   |  |  |
| 4   |  |  |  |  |    |  |  |   |  |  |   |  |  |   |  |  |
| 4   |  |  |  |  |    |  |  |   |  |  |   |  |  |   |  |  |
| 1   |  |  |  |  |    |  |  |   |  |  |   |  |  |   |  |  |
| <b>29 r8</b>  |  |  |  |  |    |  |  |   |  |  |   |  |  |   |  |  |

**2**

|  |  |  |  |  |     |  |   |    |  |  |    |  |  |
|--|--|--|--|--|-----|--|---|----|--|--|----|--|--|
| $\begin{array}{r} 21 \overline{)5,675} \\ - 2100 \\ \hline 3575 \\ - 2100 \\ \hline 1475 \\ - 1050 \\ \hline 425 \\ - 420 \\ \hline 5 \end{array}$ | <table style="border-collapse: collapse;"> <tr><td style="padding-right: 10px;">100</td><td style="padding-right: 10px;"><math>\begin{array}{r} 21 \\ \times 2 \\ \hline 42 \end{array}</math></td><td style="padding-right: 10px;"><math>\begin{array}{r} 21 \\ \times 100 \\ \hline 2100 \end{array}</math></td></tr> <tr><td style="padding-right: 10px;">100</td><td style="padding-right: 10px;"><math>\begin{array}{r} 21 \\ \times 20 \\ \hline 420 \end{array}</math></td><td style="padding-right: 10px;"><math>\begin{array}{r} 21 \\ \times 50 \\ \hline 1050 \end{array}</math></td></tr> <tr><td style="padding-right: 10px;">50</td><td></td><td></td></tr> <tr><td style="padding-right: 10px;">20</td><td></td><td></td></tr> </table> | 100  | $\begin{array}{r} 21 \\ \times 2 \\ \hline 42 \end{array}$ | $\begin{array}{r} 21 \\ \times 100 \\ \hline 2100 \end{array}$ | 100 | $\begin{array}{r} 21 \\ \times 20 \\ \hline 420 \end{array}$ | $\begin{array}{r} 21 \\ \times 50 \\ \hline 1050 \end{array}$ | 50 |  |  | 20 |  |  |
| 100  | $\begin{array}{r} 21 \\ \times 2 \\ \hline 42 \end{array}$   | $\begin{array}{r} 21 \\ \times 100 \\ \hline 2100 \end{array}$ |  |  |     |  |   |    |  |  |    |  |  |
| 100  | $\begin{array}{r} 21 \\ \times 20 \\ \hline 420 \end{array}$   | $\begin{array}{r} 21 \\ \times 50 \\ \hline 1050 \end{array}$  |  |  |     |  |   |    |  |  |    |  |  |
| 50   |  |  |  |  |     |  |   |    |  |  |    |  |  |
| 20   |  |  |  |  |     |  |   |    |  |  |    |  |  |
| <b>270 r5</b>  |  |  |  |  |     |  |   |    |  |  |    |  |  |

**3**

|  |  |    |  |    |  |   |   |   |  |
|--|--|----|--|----|--|---|---|---|--|
| $\begin{array}{r} 325 \overline{)8,476} \\ - 3250 \\ \hline 5226 \\ - 3250 \\ \hline 1976 \\ - 1300 \\ \hline 676 \\ - 650 \\ \hline 26 \end{array}$ | <table style="border-collapse: collapse;"> <tr><td style="padding-right: 10px;">10</td><td style="padding-right: 10px;"><math>\begin{array}{r} 325 \\ \times 10 \\ \hline 3250 \end{array}</math></td></tr> <tr><td style="padding-right: 10px;">10</td><td style="padding-right: 10px;"><math>\begin{array}{r} 325 \\ \times 2 \\ \hline 650 \end{array}</math></td></tr> <tr><td style="padding-right: 10px;">4</td><td style="padding-right: 10px;"><math>\begin{array}{r} 325 \\ \times 4 \\ \hline 1300 \end{array}</math></td></tr> <tr><td style="padding-right: 10px;">2</td><td></td></tr> </table> | 10 | $\begin{array}{r} 325 \\ \times 10 \\ \hline 3250 \end{array}$ | 10 | $\begin{array}{r} 325 \\ \times 2 \\ \hline 650 \end{array}$ | 4 | $\begin{array}{r} 325 \\ \times 4 \\ \hline 1300 \end{array}$ | 2 |  |
| 10   | $\begin{array}{r} 325 \\ \times 10 \\ \hline 3250 \end{array}$   |    |  |    |  |   |   |   |  |
| 10   | $\begin{array}{r} 325 \\ \times 2 \\ \hline 650 \end{array}$   |    |  |    |  |   |   |   |  |
| 4  | $\begin{array}{r} 325 \\ \times 4 \\ \hline 1300 \end{array}$  |    |  |    |  |   |   |   |  |
| 2  |  |    |  |    |  |   |   |   |  |
| <b>26 r26</b>  |  |    |  |    |  |   |   |   |  |

**4**

|  |  |  |   |  |   |  |  |   |  |  |   |  |  |   |  |  |
|--|--|--|---|--|---|--|--|---|--|--|---|--|--|---|--|--|
| $\begin{array}{r} 78 \overline{)1,349} \\ - 780 \\ \hline 569 \\ - 156 \\ \hline 413 \\ - 156 \\ \hline 257 \\ - 156 \\ \hline 101 \\ - 78 \\ \hline 23 \end{array}$ | <table style="border-collapse: collapse;"> <tr><td style="padding-right: 10px;">10</td><td style="padding-right: 10px;"><math>\begin{array}{r} 78 \\ \times 2 \\ \hline 156 \end{array}</math></td><td style="padding-right: 10px;"><math>\begin{array}{r} 78 \\ \times 10 \\ \hline 780 \end{array}</math></td></tr> <tr><td style="padding-right: 10px;">2</td><td></td><td></td></tr> <tr><td style="padding-right: 10px;">2</td><td></td><td></td></tr> <tr><td style="padding-right: 10px;">2</td><td></td><td></td></tr> <tr><td style="padding-right: 10px;">1</td><td></td><td></td></tr> </table> | 10   | $\begin{array}{r} 78 \\ \times 2 \\ \hline 156 \end{array}$ | $\begin{array}{r} 78 \\ \times 10 \\ \hline 780 \end{array}$ | 2 |  |  | 2 |  |  | 2 |  |  | 1 |  |  |
| 10   | $\begin{array}{r} 78 \\ \times 2 \\ \hline 156 \end{array}$  | $\begin{array}{r} 78 \\ \times 10 \\ \hline 780 \end{array}$ |   |  |   |  |  |   |  |  |   |  |  |   |  |  |
| 2  |  |  |   |  |   |  |  |   |  |  |   |  |  |   |  |  |
| 2  |  |  |   |  |   |  |  |   |  |  |   |  |  |   |  |  |
| 2  |  |  |   |  |   |  |  |   |  |  |   |  |  |   |  |  |
| 1  |  |  |   |  |   |  |  |   |  |  |   |  |  |   |  |  |
| <b>17 r23</b>  |  |  |   |  |   |  |  |   |  |  |   |  |  |   |  |  |