






Multidigit Multiplication Strategies Menu

Paper-and-Pencil Methods

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|-------------------|--|--|--|------|-----|-----------------------|--------------------|--|---------------------|-------------------|--|
| <p>7×326</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center; padding: 5px;">300</td> <td style="width: 33%; text-align: center; padding: 5px;">20</td> <td style="width: 33%; text-align: center; padding: 5px;">6</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">$7 \times 300 = 2100$</td> <td style="border: 1px solid black; padding: 5px;">$7 \times 20 = 140$</td> <td style="border: 1px solid black; padding: 5px;">$7 \times 6 = 42$</td> </tr> </table> $\begin{array}{r} 2100 \\ 140 \\ + 42 \\ \hline 2282 \end{array}$ | 300 | 20 | 6 | $7 \times 300 = 2100$ | $7 \times 20 = 140$ | $7 \times 6 = 42$ | <p>Using Rectangles</p>  | <p>28×63</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"></td> <td style="width: 33%; text-align: center; padding: 5px;">60</td> <td style="width: 33%; text-align: center; padding: 5px;">3</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">$20 \times 60 = 1200$</td> <td colspan="2" style="border: 1px solid black; padding: 5px;">$20 \times 3 = 60$</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">$8 \times 60 = 480$</td> <td colspan="2" style="border: 1px solid black; padding: 5px;">$8 \times 3 = 24$</td> </tr> </table> $\begin{array}{r} 1200 \\ 480 \\ 60 \\ + 24 \\ \hline 1764 \end{array}$ | | 60 | 3 | $20 \times 60 = 1200$ | $20 \times 3 = 60$ | | $8 \times 60 = 480$ | $8 \times 3 = 24$ | |
| 300 | 20 | 6 | | | | | | | | | | | | | | | |
| $7 \times 300 = 2100$ | $7 \times 20 = 140$ | $7 \times 6 = 42$ | | | | | | | | | | | | | | | |
| | 60 | 3 | | | | | | | | | | | | | | | |
| $20 \times 60 = 1200$ | $20 \times 3 = 60$ | | | | | | | | | | | | | | | | |
| $8 \times 60 = 480$ | $8 \times 3 = 24$ | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">All Partial</p>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">$\begin{array}{r} 326 \\ \times 7 \\ \hline 2100 \\ 140 \\ + 42 \\ \hline 2282 \end{array}$</td> <td style="width: 50%; padding: 5px;">$\begin{array}{r} 63 \\ \times 28 \\ \hline 1200 \\ 480 \\ 60 \\ + 24 \\ \hline 1764 \end{array}$</td> </tr> </table> | $\begin{array}{r} 326 \\ \times 7 \\ \hline 2100 \\ 140 \\ + 42 \\ \hline 2282 \end{array}$ | $\begin{array}{r} 63 \\ \times 28 \\ \hline 1200 \\ 480 \\ 60 \\ + 24 \\ \hline 1764 \end{array}$ | <p style="text-align: center;">Expanded Form</p>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">$\begin{array}{r} 326 \\ \times 7 \\ \hline \end{array}$</td> <td style="width: 50%; padding: 5px;">$\begin{array}{r} 63 = 60 + 3 \\ \times 28 \\ \hline \end{array}$</td> </tr> </table> <p style="text-align: center;">$2100 + 140 + 42 = 2282$</p> | $\begin{array}{r} 326 \\ \times 7 \\ \hline \end{array}$ | $\begin{array}{r} 63 = 60 + 3 \\ \times 28 \\ \hline \end{array}$ | | | | | | | | | | | | |
| $\begin{array}{r} 326 \\ \times 7 \\ \hline 2100 \\ 140 \\ + 42 \\ \hline 2282 \end{array}$ | $\begin{array}{r} 63 \\ \times 28 \\ \hline 1200 \\ 480 \\ 60 \\ + 24 \\ \hline 1764 \end{array}$ | | | | | | | | | | | | | | | | |
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| <p style="text-align: center;">Compact</p>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">$\begin{array}{r} 14 \\ 326 \\ \times 7 \\ \hline 2282 \end{array}$</td> <td style="width: 50%; padding: 5px;">$\begin{array}{r} 2 \\ 63 \\ \times 28 \\ \hline 504 \\ 1260 \\ \hline 1764 \end{array}$</td> </tr> </table> | $\begin{array}{r} 14 \\ 326 \\ \times 7 \\ \hline 2282 \end{array}$ | $\begin{array}{r} 2 \\ 63 \\ \times 28 \\ \hline 504 \\ 1260 \\ \hline 1764 \end{array}$ | <p style="text-align: center;">Combination</p>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">$\begin{array}{r} 63 \\ \times 20 \\ \hline 1260 \end{array}$</td> <td style="width: 50%; padding: 5px;">$\begin{array}{r} 2 \\ 63 \\ \times 8 \\ \hline 504 \end{array}$</td> </tr> </table> <p style="text-align: center;">$= 1764$</p> | $\begin{array}{r} 63 \\ \times 20 \\ \hline 1260 \end{array}$ | $\begin{array}{r} 2 \\ 63 \\ \times 8 \\ \hline 504 \end{array}$ | | | | | | | | | | | | |
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