

Invented Strategies for Multiplication

...from John A. Van de Walle

Name: _____

Date: _____

Problem:

<p>Complete Number Strategies 63×5</p> <div style="display: flex; align-items: center;"> <div style="border-right: 1px solid black; padding-right: 10px;"> $\begin{array}{r} 63 \\ + 63 \\ \hline 126 \\ + 63 \\ \hline 189 \\ + 63 \\ \hline 252 \end{array}$ </div> <div style="padding-left: 10px;"> </div> </div>	
<p>Partitioning Strategies 27×4</p> <div style="display: flex; align-items: center;"> <div style="border-right: 1px solid black; padding-right: 10px;"> <p>By Decades</p> $\begin{array}{r} 4 \times 20 = 80 \\ 4 \times 7 = 28 \\ \hline 108 \end{array}$ </div> <div style="padding-left: 10px;"> <p>By Tens and Ones</p> $\begin{array}{r} 10 \times 4 = 40 \\ 10 \times 4 = 40 \\ 7 \times 4 = 28 \\ \hline 108 \end{array}$ </div> </div> <p>Partitioning the Multiplier</p> $\begin{array}{r} 46 \times 3 \\ \text{Double } 46 \rightarrow 92 \\ \hline 138 \end{array}$	
<p>Compensation Strategies 27×4</p> $\begin{array}{r} 27 + 3 \rightarrow 30 \times 4 \rightarrow 120 \\ 3 \times 4 = 12 \rightarrow \underline{-12} \\ \hline 108 \end{array}$ <p>46×5</p> <p>I can split 46 in half and multiply by 10</p> $23 \times 10 = 230$	
<p>Using Multiples of 10 and 100</p> <p style="text-align: center;">400×12</p> <p>Students will use 4×12 to figure out that 400×12 is 4800.</p>	
<p>Area Models 34×6</p> <div style="text-align: center;"> </div> <p style="text-align: center;">$6 \times 30 = 180$ $6 \times 4 = 24$</p>	