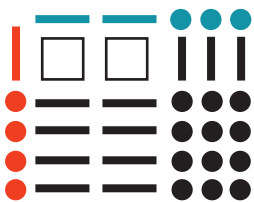


Name _____

Date _____

THREE WAYS TO MULTIPLY

Here are three strategies you can use to multiply multi-digit factors.
For each strategy, look at the example problem on the left.
Then, try it on the right!

	23 x 14	45 x 13																			
BASE TEN ARRAY	● = 1 = 10 □ = 100																				
	23×14  $200 + 110 + 12 = 322$ $23 \times 14 = 322$																				
AREA MODEL	23×14 $(20 + 3) \times (10 + 4)$																				
	$20 + 3$ <table style="border-collapse: collapse; margin-left: 20px;"> <tr> <td style="padding-right: 10px;">10</td> <td style="border: 1px dashed black; padding: 5px;">10×20 200</td> <td style="border: 1px dashed black; padding: 5px;">10×3 30</td> <td style="padding-left: 10px;">200</td> </tr> <tr> <td style="padding-right: 10px;">+</td> <td></td> <td></td> <td style="padding-left: 10px;">30</td> </tr> <tr> <td style="padding-right: 10px;">4</td> <td style="border: 1px dashed black; padding: 5px;">4×20 80</td> <td style="border: 1px dashed black; padding: 5px;">4×3 12</td> <td style="padding-left: 10px;">80</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="padding-left: 10px;"><u>+12</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td style="padding-left: 10px;">322</td> </tr> </table> $23 \times 14 = 322$	10	10×20 200	10×3 30	200	+			30	4	4×20 80	4×3 12	80				<u>+12</u>				322
10	10×20 200	10×3 30	200																		
+			30																		
4	4×20 80	4×3 12	80																		
			<u>+12</u>																		
			322																		
PARTIAL PRODUCTS	$\begin{array}{r} 23 \\ \times 14 \\ \hline 12 \text{ } (4 \times 3) \\ 80 \text{ } (4 \times 20) \\ 30 \text{ } (10 \times 3) \\ + 200 \text{ } (10 \times 20) \\ \hline 322 \end{array}$																				