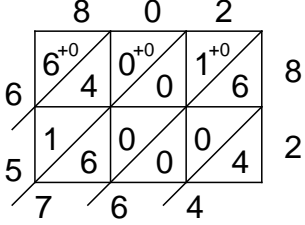


Lattice multiplication with two- and three-digit numbers (2x3)

Solutions are on page 2

<p>(1) $802 \times 82 = 65,764$</p> 	<p>(2) $886 \times 27 =$</p>	<p>(3) $566 \times 61 =$</p>
<p>(4) $882 \times 70 =$</p>	<p>(5) $323 \times 43 =$</p>	<p>(6) $949 \times 19 =$</p>
<p>(7) $453 \times 27 =$</p>	<p>(8) $471 \times 77 =$</p>	<p>(9) $648 \times 14 =$</p>
<p>(10) $355 \times 56 =$</p>	<p>(11) $223 \times 75 =$</p>	<p>(12) $878 \times 93 =$</p>

Lattice multiplication with two- and three-digit numbers (2x3)

Also see the Worksheets and Walkthroughs video: 'Multiplication--The Lattice Method'

<p>(1)</p> <p>$802 \times 82 = 65,764$</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">8</td><td style="text-align: center;">0</td><td style="text-align: center;">2</td><td></td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">6</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">6^{+0} 4</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+0} 0</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">1^{+0} 6</td><td style="padding: 5px;">8</td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">5</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">1 6</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">0 0</td><td style="padding: 5px; text-align: center;">0 4</td><td style="padding: 5px;">2</td></tr> <tr><td></td><td style="text-align: center;">7</td><td style="text-align: center;">6</td><td style="text-align: center;">4</td><td></td></tr> </table>		8	0	2		6	6^{+0} 4	0^{+0} 0	1^{+0} 6	8	5	1 6	0 0	0 4	2		7	6	4		<p>(2)</p> <p>$886 \times 27 = 23,922$</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">8</td><td style="text-align: center;">8</td><td style="text-align: center;">6</td><td></td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">2</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">1^{+1} 6</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">1^{+1} 6</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">1^{+1} 2</td><td style="padding: 5px;">2</td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">3</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">5 6</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">5 6</td><td style="padding: 5px; text-align: center;">4 2</td><td style="padding: 5px;">7</td></tr> <tr><td></td><td style="text-align: center;">9</td><td style="text-align: center;">2</td><td style="text-align: center;">2</td><td></td></tr> </table>		8	8	6		2	1^{+1} 6	1^{+1} 6	1^{+1} 2	2	3	5 6	5 6	4 2	7		9	2	2		<p>(3)</p> <p>$566 \times 61 = 34,526$</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">5</td><td style="text-align: center;">6</td><td style="text-align: center;">6</td><td></td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">3</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">3^{+0} 0</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">3^{+1} 6</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">3^{+1} 6</td><td style="padding: 5px;">6</td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">4</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0 5</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">0 6</td><td style="padding: 5px; text-align: center;">0 6</td><td style="padding: 5px;">1</td></tr> <tr><td></td><td style="text-align: center;">5</td><td style="text-align: center;">2</td><td style="text-align: center;">6</td><td></td></tr> </table>		5	6	6		3	3^{+0} 0	3^{+1} 6	3^{+1} 6	6	4	0 5	0 6	0 6	1		5	2	6	
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<p>(4)</p> <p>$882 \times 70 = 61,740$</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">8</td><td style="text-align: center;">8</td><td style="text-align: center;">2</td><td></td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">6</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">5^{+1} 6</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">5^{+0} 6</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">1^{+0} 4</td><td style="padding: 5px;">7</td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">1</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0 0</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">0 0</td><td style="padding: 5px; text-align: center;">0 0</td><td style="padding: 5px;">0</td></tr> <tr><td></td><td style="text-align: center;">7</td><td style="text-align: center;">4</td><td style="text-align: center;">0</td><td></td></tr> </table>		8	8	2		6	5^{+1} 6	5^{+0} 6	1^{+0} 4	7	1	0 0	0 0	0 0	0		7	4	0		<p>(5)</p> <p>$323 \times 43 = 13,889$</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">3</td><td style="text-align: center;">2</td><td style="text-align: center;">3</td><td></td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">1</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">1^{+0} 2</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+1} 8</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">1^{+0} 2</td><td style="padding: 5px;">4</td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">3</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0 9</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">0 6</td><td style="padding: 5px; text-align: center;">0 9</td><td style="padding: 5px;">3</td></tr> <tr><td></td><td style="text-align: center;">8</td><td style="text-align: center;">8</td><td style="text-align: center;">9</td><td></td></tr> </table>		3	2	3		1	1^{+0} 2	0^{+1} 8	1^{+0} 2	4	3	0 9	0 6	0 9	3		8	8	9		<p>(6)</p> <p>$949 \times 19 = 18,031$</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">9</td><td style="text-align: center;">4</td><td style="text-align: center;">9</td><td></td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">1</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+1} 9</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+1} 4</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+2} 9</td><td style="padding: 5px;">1</td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">8</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">8 1</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">3 6</td><td style="padding: 5px; text-align: center;">8 1</td><td style="padding: 5px;">9</td></tr> <tr><td></td><td style="text-align: center;">0</td><td style="text-align: center;">3</td><td style="text-align: center;">1</td><td></td></tr> </table>		9	4	9		1	0^{+1} 9	0^{+1} 4	0^{+2} 9	1	8	8 1	3 6	8 1	9		0	3	1	
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<p>(7)</p> <p>$453 \times 27 = 12,231$</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">4</td><td style="text-align: center;">5</td><td style="text-align: center;">3</td><td></td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">1</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+1} 8</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">1^{+1} 0</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+1} 6</td><td style="padding: 5px;">2</td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">2</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">2 8</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">3 5</td><td style="padding: 5px; text-align: center;">2 1</td><td style="padding: 5px;">7</td></tr> <tr><td></td><td style="text-align: center;">2</td><td style="text-align: center;">3</td><td style="text-align: center;">1</td><td></td></tr> </table>		4	5	3		1	0^{+1} 8	1^{+1} 0	0^{+1} 6	2	2	2 8	3 5	2 1	7		2	3	1		<p>(8)</p> <p>$471 \times 77 = 36,267$</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">4</td><td style="text-align: center;">7</td><td style="text-align: center;">1</td><td></td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">3</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">2^{+1} 8</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">4^{+2} 9</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+1} 7</td><td style="padding: 5px;">7</td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">6</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">2 8</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">4 9</td><td style="padding: 5px; text-align: center;">0 7</td><td style="padding: 5px;">7</td></tr> <tr><td></td><td style="text-align: center;">2</td><td style="text-align: center;">6</td><td style="text-align: center;">7</td><td></td></tr> </table>		4	7	1		3	2^{+1} 8	4^{+2} 9	0^{+1} 7	7	6	2 8	4 9	0 7	7		2	6	7		<p>(9)</p> <p>$648 \times 14 = 9,072$</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">6</td><td style="text-align: center;">4</td><td style="text-align: center;">8</td><td></td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">0</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+0} 6</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+1} 4</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">0^{+1} 8</td><td style="padding: 5px;">1</td></tr> <tr><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">9</td><td style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; text-align: center;">2 4</td><td style="border-bottom: 1px solid black; padding: 5px; text-align: center;">1 6</td><td style="padding: 5px; text-align: center;">3 2</td><td style="padding: 5px;">4</td></tr> <tr><td></td><td style="text-align: center;">0</td><td style="text-align: center;">7</td><td style="text-align: center;">2</td><td></td></tr> </table>		6	4	8		0	0^{+0} 6	0^{+1} 4	0^{+1} 8	1	9	2 4	1 6	3 2	4		0	7	2	
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