

Name _____

Squaring Numbers

Find the squares using column method.

<p>1) Find the square of 47 Given number = 47 a = 4 and b = 7</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">I</th> <th style="width: 33%;">II</th> <th style="width: 33%;">III</th> </tr> <tr> <th>a^2</th> <th>$2 \times a \times b$</th> <th>b^2</th> </tr> </thead> <tbody> <tr> <td>16</td> <td>56</td> <td>49</td> </tr> <tr> <td>+6</td> <td>+4</td> <td></td> </tr> <tr> <td><u>22</u></td> <td><u>60</u></td> <td></td> </tr> </tbody> </table> <p>$\therefore (47)^2 = 2209$</p>	I	II	III	a^2	$2 \times a \times b$	b^2	16	56	49	+6	+4		<u>22</u>	<u>60</u>		<p>2) Find the square of 36 Given number = 36 a = 3 and b = 6</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">I</th> <th style="width: 33%;">II</th> <th style="width: 33%;">III</th> </tr> <tr> <th>a^2</th> <th>$2 \times a \times b$</th> <th>b^2</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>36</td> <td>36</td> </tr> <tr> <td>+3</td> <td>+3</td> <td></td> </tr> <tr> <td><u>12</u></td> <td><u>39</u></td> <td></td> </tr> </tbody> </table> <p>$\therefore (36)^2 = 1296$</p>	I	II	III	a^2	$2 \times a \times b$	b^2	9	36	36	+3	+3		<u>12</u>	<u>39</u>	
I	II	III																													
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<p>3) Find the square of 75 Given number = 75 a = 7 and b = 5</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">I</th> <th style="width: 33%;">II</th> <th style="width: 33%;">III</th> </tr> <tr> <th>a^2</th> <th>$2 \times a \times b$</th> <th>b^2</th> </tr> </thead> <tbody> <tr> <td>49</td> <td>70</td> <td>25</td> </tr> <tr> <td>+7</td> <td>+2</td> <td></td> </tr> <tr> <td><u>56</u></td> <td><u>72</u></td> <td></td> </tr> </tbody> </table> <p>$\therefore (75)^2 = 5625$</p>	I	II	III	a^2	$2 \times a \times b$	b^2	49	70	25	+7	+2		<u>56</u>	<u>72</u>		<p>4) Find the square of 58 Given number = 58 a = 5 and b = 8</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">I</th> <th style="width: 33%;">II</th> <th style="width: 33%;">III</th> </tr> <tr> <th>a^2</th> <th>$2 \times a \times b$</th> <th>b^2</th> </tr> </thead> <tbody> <tr> <td>25</td> <td>80</td> <td>64</td> </tr> <tr> <td>+8</td> <td>+6</td> <td></td> </tr> <tr> <td><u>33</u></td> <td><u>86</u></td> <td></td> </tr> </tbody> </table> <p>$\therefore (58)^2 = 3364$</p>	I	II	III	a^2	$2 \times a \times b$	b^2	25	80	64	+8	+6		<u>33</u>	<u>86</u>	
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<p>5) Find the square of 49 Given number = 49 a = 4 and b = 9</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">I</th> <th style="width: 33%;">II</th> <th style="width: 33%;">III</th> </tr> <tr> <th>a^2</th> <th>$2 \times a \times b$</th> <th>b^2</th> </tr> </thead> <tbody> <tr> <td>16</td> <td>72</td> <td>81</td> </tr> <tr> <td>+8</td> <td>+8</td> <td></td> </tr> <tr> <td><u>24</u></td> <td><u>80</u></td> <td></td> </tr> </tbody> </table> <p>$\therefore (49)^2 = 2401$</p>	I	II	III	a^2	$2 \times a \times b$	b^2	16	72	81	+8	+8		<u>24</u>	<u>80</u>		<p>6) Find the square of 66 Given number = 66 a = 6 and b = 6</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">I</th> <th style="width: 33%;">II</th> <th style="width: 33%;">III</th> </tr> <tr> <th>a^2</th> <th>$2 \times a \times b$</th> <th>b^2</th> </tr> </thead> <tbody> <tr> <td>36</td> <td>72</td> <td>36</td> </tr> <tr> <td>+7</td> <td>+3</td> <td></td> </tr> <tr> <td><u>43</u></td> <td><u>75</u></td> <td></td> </tr> </tbody> </table> <p>$\therefore (66)^2 = 4356$</p>	I	II	III	a^2	$2 \times a \times b$	b^2	36	72	36	+7	+3		<u>43</u>	<u>75</u>	
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<p>7) Find the square of 34 Given number = 34 a = 3 and b = 4</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">I</th> <th style="width: 33%;">II</th> <th style="width: 33%;">III</th> </tr> <tr> <th>a^2</th> <th>$2 \times a \times b$</th> <th>b^2</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>24</td> <td>16</td> </tr> <tr> <td>+2</td> <td>+1</td> <td></td> </tr> <tr> <td><u>11</u></td> <td><u>25</u></td> <td></td> </tr> </tbody> </table> <p>$\therefore (34)^2 = 1156$</p>	I	II	III	a^2	$2 \times a \times b$	b^2	9	24	16	+2	+1		<u>11</u>	<u>25</u>		<p>8) Find the square of 27 Given number = 27 a = 2 and b = 7</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">I</th> <th style="width: 33%;">II</th> <th style="width: 33%;">III</th> </tr> <tr> <th>a^2</th> <th>$2 \times a \times b$</th> <th>b^2</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>28</td> <td>49</td> </tr> <tr> <td>+3</td> <td>+4</td> <td></td> </tr> <tr> <td><u>7</u></td> <td><u>32</u></td> <td></td> </tr> </tbody> </table> <p>$\therefore (27)^2 = 729$</p>	I	II	III	a^2	$2 \times a \times b$	b^2	4	28	49	+3	+4		<u>7</u>	<u>32</u>	
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