



## Year 3 Multiplication and Division

| Key Vocabulary | Multiplication and Division Facts (3, 4 and 8 multiplication tables) |    |    |    |    |    |    |    |    |     |     |     |     |
|----------------|--|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| times table    | x  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9   | 10  | 11  | 12  |
| multiply by    | 1  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9   | 10  | 11  | 12  |
| divide by      | 2  | 2  | 4  | 6  | 8  | 10 | 12 | 14 | 16 | 18  | 20  | 22  | 24  |
| array          | 3  | 3  | 6  | 9  | 12 | 15 | 18 | 21 | 24 | 27  | 30  | 33  | 36  |
| fact families  | 4  | 4  | 8  | 12 | 16 | 20 | 24 | 28 | 32 | 36  | 40  | 44  | 48  |
| regrouping     | 5  | 5  | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45  | 50  | 55  | 60  |
|                | 6  | 6  | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54  | 60  | 66  | 72  |
|                | 7  | 7  | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63  | 70  | 77  | 84  |
|                | 8  | 8  | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72  | 80  | 88  | 96  |
|                | 9  | 9  | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81  | 90  | 99  | 108 |
|                | 10   | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90  | 100 | 110 | 120 |
|                | 11   | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99  | 110 | 121 | 132 |
|                | 12   | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |

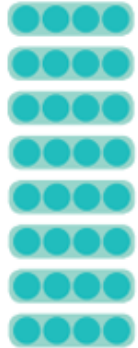
  

|  |  |  |
|--|--|--|
| <h3 style="color: white; margin: 0;">3 x Tables</h3> <div style="background-color: white; padding: 5px; margin: 5px;"> <math>1 \times 3 = 3</math><br/> <math>2 \times 3 = 6</math><br/> <math>3 \times 3 = 9</math><br/> <math>4 \times 3 = 12</math><br/> <math>5 \times 3 = 15</math><br/> <math>6 \times 3 = 18</math><br/> <math>7 \times 3 = 21</math><br/> <math>8 \times 3 = 24</math><br/> <math>9 \times 3 = 27</math><br/> <math>10 \times 3 = 30</math><br/> <math>11 \times 3 = 33</math><br/> <math>12 \times 3 = 36</math> </div> <div style="background-color: white; padding: 5px; margin: 5px;"> <math>3 + 3 = 1</math><br/> <math>6 + 3 = 2</math><br/> <math>9 + 3 = 3</math><br/> <math>12 + 3 = 4</math><br/> <math>15 + 3 = 5</math><br/> <math>18 + 3 = 6</math><br/> <math>21 + 3 = 7</math><br/> <math>24 + 3 = 8</math><br/> <math>27 + 3 = 9</math><br/> <math>30 + 3 = 10</math><br/> <math>33 + 3 = 11</math><br/> <math>36 + 3 = 12</math> </div> | <h3 style="color: white; margin: 0;">4 x Tables</h3> <div style="background-color: white; padding: 5px; margin: 5px;"> <math>1 \times 4 = 4</math><br/> <math>2 \times 4 = 8</math><br/> <math>3 \times 4 = 12</math><br/> <math>4 \times 4 = 16</math><br/> <math>5 \times 4 = 20</math><br/> <math>6 \times 4 = 24</math><br/> <math>7 \times 4 = 28</math><br/> <math>8 \times 4 = 32</math><br/> <math>9 \times 4 = 36</math><br/> <math>10 \times 4 = 40</math><br/> <math>11 \times 4 = 44</math><br/> <math>12 \times 4 = 48</math> </div> <div style="background-color: white; padding: 5px; margin: 5px;"> <math>4 + 4 = 1</math><br/> <math>8 + 4 = 2</math><br/> <math>12 + 4 = 3</math><br/> <math>16 + 4 = 4</math><br/> <math>20 + 4 = 5</math><br/> <math>24 + 4 = 6</math><br/> <math>28 + 4 = 7</math><br/> <math>32 + 4 = 8</math><br/> <math>36 + 4 = 9</math><br/> <math>40 + 4 = 10</math><br/> <math>44 + 4 = 11</math><br/> <math>48 + 4 = 12</math> </div> | <h3 style="color: white; margin: 0;">8 x Tables</h3> <div style="background-color: white; padding: 5px; margin: 5px;"> <math>1 \times 8 = 8</math><br/> <math>2 \times 8 = 16</math><br/> <math>3 \times 8 = 24</math><br/> <math>4 \times 8 = 32</math><br/> <math>5 \times 8 = 40</math><br/> <math>6 \times 8 = 48</math><br/> <math>7 \times 8 = 56</math><br/> <math>8 \times 8 = 64</math><br/> <math>9 \times 8 = 72</math><br/> <math>10 \times 8 = 80</math><br/> <math>11 \times 8 = 88</math><br/> <math>12 \times 8 = 96</math> </div> <div style="background-color: white; padding: 5px; margin: 5px;"> <math>8 + 8 = 1</math><br/> <math>16 + 8 = 2</math><br/> <math>24 + 8 = 3</math><br/> <math>32 + 8 = 4</math><br/> <math>40 + 8 = 5</math><br/> <math>48 + 8 = 6</math><br/> <math>56 + 8 = 7</math><br/> <math>64 + 8 = 8</math><br/> <math>72 + 8 = 9</math><br/> <math>80 + 8 = 10</math><br/> <math>88 + 8 = 11</math><br/> <math>96 + 8 = 12</math> </div> |
|--|--|--|

## Write and Calculate Mathematical Statements

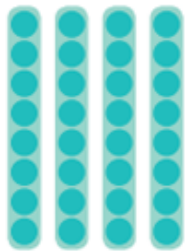
$$4 \times 8 = 32$$

$$32 \div 8 = 4$$



$$8 \times 4 = 32$$

$$32 \div 4 = 8$$



$$5 \times 3 = 15$$

$$15 \div 3 = 5$$



$$3 \times 5 = 15$$

$$15 \div 5 = 3$$



## Related Calculations

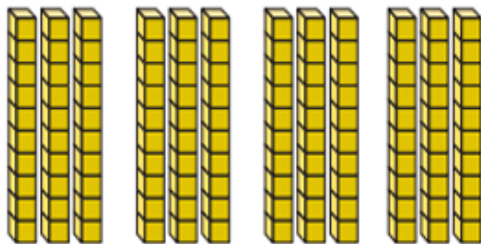
$$3 \times 4 = 12$$



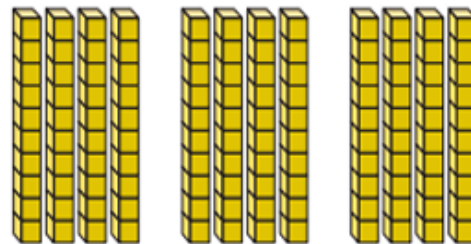
$$4 \times 3 = 12$$



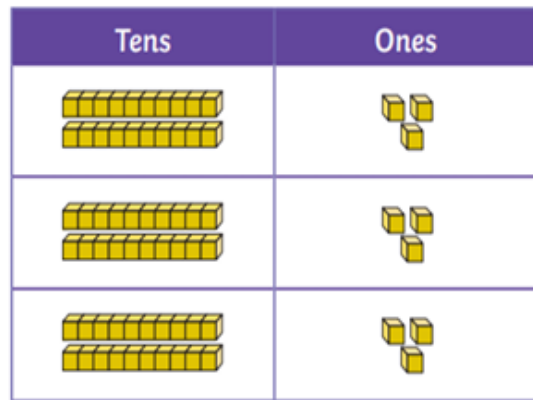
$$30 \times 4 = 120$$



$$40 \times 3 = 120$$



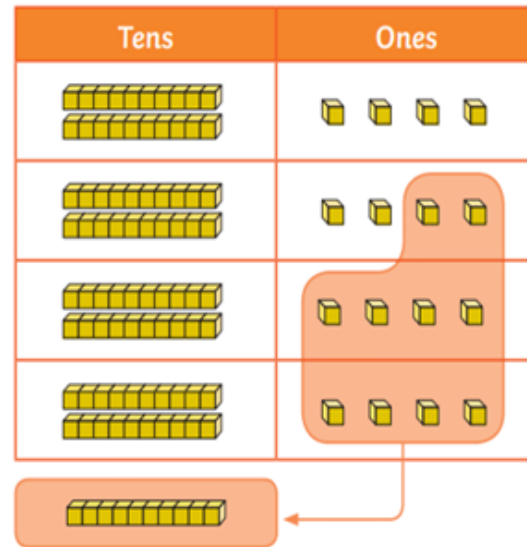
### Written Multiplication Methods – No Regrouping



$$23 \times 3 = 69$$

|   |   |   |
|---|---|---|
|   | T | O |
|   | 2 | 3 |
| x |   | 3 |
|   | 6 | 9 |
|   |   |   |

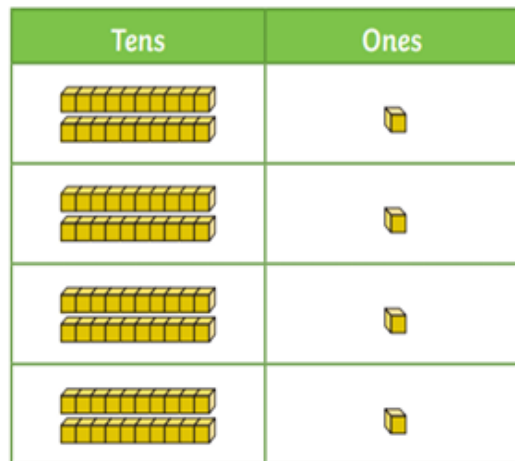
### Written Multiplication Methods – With Regrouping



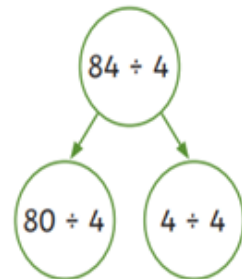
$$24 \times 4 = 96$$

|   |   |   |
|---|---|---|
|   | T | O |
|   | 2 | 4 |
| x |   | 4 |
|   | 9 | 6 |
|   | 1 |   |

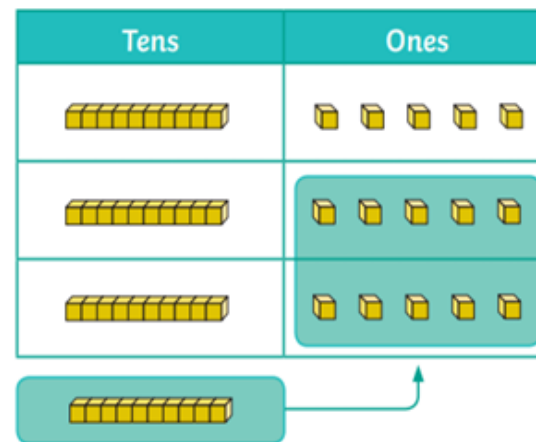
### Written Division Methods – No Regrouping



|   |   |   |
|---|---|---|
|   | 2 | 1 |
| 4 | 8 | 4 |



### Written Division Methods – With Regrouping



|   |   |    |
|---|---|----|
|   | 1 | 5  |
| 3 | 4 | 15 |

