

# Multiplication script (Expanded notation method)

Language (Script)	Recording																																																																																				
<p><b>423 multiplied by 15</b></p> <p>Expand the two numbers</p>	<table border="1"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>o</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>4</td> <td>2</td> <td>3</td> <td>(400 + 20 + 3)</td> <td></td> </tr> <tr> <td>x</td> <td>1</td> <td>5</td> <td>(10 + 5)</td> <td></td> <td></td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Th	H	T	o				4	2	3	(400 + 20 + 3)		x	1	5	(10 + 5)																																																																				
Th	H	T	o																																																																																		
	4	2	3	(400 + 20 + 3)																																																																																	
x	1	5	(10 + 5)																																																																																		
<p><b>Multiply by the ones</b></p> <p>Record each of the multiplication facts:</p> <ul style="list-style-type: none"> <li>• 5 × 3</li> <li>• 5 × 20 (Note you are not multiplying by 2)</li> <li>• 5 × 400 (Note you are not multiplying by 4)</li> </ul>	<table border="1"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>o</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>4</td> <td>2</td> <td>3</td> <td>(400 + 20 + 3)</td> <td></td> </tr> <tr> <td>x</td> <td>1</td> <td>5</td> <td>(10 + 5)</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>5 × 3</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>5 × 20</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>5 × 400</td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Th	H	T	o				4	2	3	(400 + 20 + 3)		x	1	5	(10 + 5)								5 × 3						5 × 20						5 × 400																																																
Th	H	T	o																																																																																		
	4	2	3	(400 + 20 + 3)																																																																																	
x	1	5	(10 + 5)																																																																																		
					5 × 3																																																																																
					5 × 20																																																																																
					5 × 400																																																																																
<p>Record your answers for each multiplication fact:</p> <ul style="list-style-type: none"> <li>• 5 threes is 15</li> <li>• 5 twenties is 100</li> <li>• 5 four hundreds is 2000</li> </ul>	<table border="1"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>o</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>4</td> <td>2</td> <td>3</td> <td>(400 + 20 + 3)</td> <td></td> </tr> <tr> <td>x</td> <td>1</td> <td>5</td> <td>(10 + 5)</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>1</td> <td>5</td> <td></td> <td>5 × 3</td> </tr> <tr> <td></td> <td>1</td> <td>0</td> <td>0</td> <td></td> <td>5 × 20</td> </tr> <tr> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>5 × 400</td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Th	H	T	o				4	2	3	(400 + 20 + 3)		x	1	5	(10 + 5)					1	5		5 × 3		1	0	0		5 × 20	2	0	0	0		5 × 400																																																
Th	H	T	o																																																																																		
	4	2	3	(400 + 20 + 3)																																																																																	
x	1	5	(10 + 5)																																																																																		
		1	5		5 × 3																																																																																
	1	0	0		5 × 20																																																																																
2	0	0	0		5 × 400																																																																																
<p><b>Multiply by the tens</b></p> <p>Record each of the multiplication facts</p> <ul style="list-style-type: none"> <li>• 10 × 3</li> <li>• 10 × 20 (Note you are not multiplying by 2)</li> <li>• 10 × 400 (Note you are not multiplying by 4)</li> </ul> <p>Record your answers for each multiplication fact:</p> <ul style="list-style-type: none"> <li>• 10 threes is 30</li> <li>• 10 twenties is 200</li> <li>• 10 four hundreds is 4000</li> </ul>	<table border="1"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>o</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>4</td> <td>2</td> <td>3</td> <td>(400 + 20 + 3)</td> <td></td> </tr> <tr> <td>x</td> <td>1</td> <td>5</td> <td>(10 + 5)</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>1</td> <td>5</td> <td></td> <td>5 × 3</td> </tr> <tr> <td></td> <td>1</td> <td>0</td> <td>0</td> <td></td> <td>5 × 20</td> </tr> <tr> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>5 × 400</td> </tr> <tr> <td></td> <td></td> <td>3</td> <td>0</td> <td></td> <td>10 × 3</td> </tr> <tr> <td></td> <td>2</td> <td>0</td> <td>0</td> <td></td> <td>10 × 20</td> </tr> <tr> <td>4</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>10 × 400</td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Th	H	T	o				4	2	3	(400 + 20 + 3)		x	1	5	(10 + 5)					1	5		5 × 3		1	0	0		5 × 20	2	0	0	0		5 × 400			3	0		10 × 3		2	0	0		10 × 20	4	0	0	0		10 × 400																														
Th	H	T	o																																																																																		
	4	2	3	(400 + 20 + 3)																																																																																	
x	1	5	(10 + 5)																																																																																		
		1	5		5 × 3																																																																																
	1	0	0		5 × 20																																																																																
2	0	0	0		5 × 400																																																																																
		3	0		10 × 3																																																																																
	2	0	0		10 × 20																																																																																
4	0	0	0		10 × 400																																																																																
<p><b>Add the digits</b></p> <p>Add the digits one place value at a time</p>	<table border="1"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>o</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>4</td> <td>2</td> <td>3</td> <td>(400 + 20 + 3)</td> <td></td> </tr> <tr> <td>x</td> <td>1</td> <td>5</td> <td>(10 + 5)</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>1</td> <td>5</td> <td></td> <td>5 × 3</td> </tr> <tr> <td></td> <td>1</td> <td>0</td> <td>0</td> <td></td> <td>5 × 20</td> </tr> <tr> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>5 × 400</td> </tr> <tr> <td></td> <td></td> <td>3</td> <td>0</td> <td></td> <td>10 × 3</td> </tr> <tr> <td></td> <td>2</td> <td>0</td> <td>0</td> <td></td> <td>10 × 20</td> </tr> <tr> <td>+</td> <td>4</td> <td>0</td> <td>0</td> <td></td> <td>10 × 400</td> </tr> <tr> <td></td> <td>6</td> <td>3</td> <td>4</td> <td>5</td> <td></td> </tr> </tbody> </table>	Th	H	T	o				4	2	3	(400 + 20 + 3)		x	1	5	(10 + 5)					1	5		5 × 3		1	0	0		5 × 20	2	0	0	0		5 × 400			3	0		10 × 3		2	0	0		10 × 20	+	4	0	0		10 × 400		6	3	4	5																									
Th	H	T	o																																																																																		
	4	2	3	(400 + 20 + 3)																																																																																	
x	1	5	(10 + 5)																																																																																		
		1	5		5 × 3																																																																																
	1	0	0		5 × 20																																																																																
2	0	0	0		5 × 400																																																																																
		3	0		10 × 3																																																																																
	2	0	0		10 × 20																																																																																
+	4	0	0		10 × 400																																																																																
	6	3	4	5																																																																																	
<p>423 multiplied by 15 is 6345</p>																																																																																					