

# MULTIPLICATION USING A GRID - TRIPLE DIGIT X DOUBLE DIGIT

NAME: \_\_\_\_\_

## Here's a new method for you to try!

My problem is:  $145 \times 13 = ?$



### Step one:

Break the numbers up into their different parts.

$$145 = 100 + 40 + 5$$

$$13 = 10 + 3$$

### Step two:

Fill the numbers onto a grid like this.

x	100	40	5	
10				
3				

### Step 3:

Begin to cross multiply each number filling the answer into the grid.

(This is just like filling in a multiplication square.)

x	100	40	5	
10	1000	400	50	
3	300	120	15	



### Step 4:

Add up each row of numbers and put your total at the side of the column.

x	100	40	5	
10	1000	400	50	1450
3	300	120	15	435

### Step 5:

Simply add the two numbers together to get your final answer.

$$1450$$

$$+ 435$$

$$\hline 1885$$

How easy is that?



Therefore:

$$145 \times 13 = 1885$$

### Challenge!

Can you use this new method to solve the problem below?

$$134 \times 15 = ?$$

Draw a grid to solve the following problems:

$$145 \times 67 =$$

$$267 \times 19 =$$

$$142 \times 12 =$$

$$243 \times 15 =$$

$$156 \times 14 =$$

$$262 \times 15 =$$

$$142 \times 15 =$$

$$193 \times 13 =$$

WELL DONE!

# MULTIPLICATION USING A GRID

## ANSWERS

**Here's a new method for you to try!**

My problem is:  $145 \times 13 = ?$

**Step one:**  
Break the numbers up into their different parts.  
 $145 = 100 + 40 + 5$   
 $13 = 10 + 3$

**Step two:**  
Fill the numbers onto a grid like this.

x	100	40	5
10			
3			

**Step 3:**  
Begin to cross multiply each number filling the answer into the grid.  
(This is just like filling in a multiplication square.)

x	100	40	5	
10	1000	400	50	
3	300	120	15	

**Step 4:**  
Add up each row of numbers and put your total at the side of the column.

x	100	40	5	
10	1000	400	50	1450
3	300	120	15	435

**Step 5:**  
Simply add the two numbers together to get your final answer.

1450	
+ 435	How easy is that?
1885	

Therefore:  
 $145 \times 13 = 1885$

**Challenge!**  
Can you use this new method to solve the problem below?  
 $134 \times 15 = ?$

Draw a grid to solve the following problems:

<p><math>145 \times 67 = 9715</math></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 5px;">x</td><td style="padding: 2px 5px;">100</td><td style="padding: 2px 5px;">40</td><td style="padding: 2px 5px;">5</td></tr> <tr><td style="padding: 2px 5px;">60</td><td style="padding: 2px 5px;">6000</td><td style="padding: 2px 5px;">2400</td><td style="padding: 2px 5px;">300</td></tr> <tr><td style="padding: 2px 5px;">7</td><td style="padding: 2px 5px;">700</td><td style="padding: 2px 5px;">280</td><td style="padding: 2px 5px;">35</td></tr> </table> <p><math>8700 + 1015 =</math></p>	x	100	40	5	60	6000	2400	300	7	700	280	35	<p><math>267 \times 19 = 5073</math></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 5px;">x</td><td style="padding: 2px 5px;">200</td><td style="padding: 2px 5px;">60</td><td style="padding: 2px 5px;">7</td></tr> <tr><td style="padding: 2px 5px;">10</td><td style="padding: 2px 5px;">2000</td><td style="padding: 2px 5px;">600</td><td style="padding: 2px 5px;">70</td></tr> <tr><td style="padding: 2px 5px;">9</td><td style="padding: 2px 5px;">1800</td><td style="padding: 2px 5px;">540</td><td style="padding: 2px 5px;">63</td></tr> </table> <p><math>2670 + 2403 =</math></p>	x	200	60	7	10	2000	600	70	9	1800	540	63
x	100	40	5																						
60	6000	2400	300																						
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<p><math>142 \times 12 = 1704</math></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 5px;">x</td><td style="padding: 2px 5px;">100</td><td style="padding: 2px 5px;">40</td><td style="padding: 2px 5px;">2</td></tr> <tr><td style="padding: 2px 5px;">10</td><td style="padding: 2px 5px;">1000</td><td style="padding: 2px 5px;">400</td><td style="padding: 2px 5px;">20</td></tr> <tr><td style="padding: 2px 5px;">2</td><td style="padding: 2px 5px;">200</td><td style="padding: 2px 5px;">80</td><td style="padding: 2px 5px;">4</td></tr> </table> <p><math>1420 + 284 =</math></p>	x	100	40	2	10	1000	400	20	2	200	80	4	<p><math>243 \times 15 = 3645</math></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 5px;">x</td><td style="padding: 2px 5px;">200</td><td style="padding: 2px 5px;">40</td><td style="padding: 2px 5px;">3</td></tr> <tr><td style="padding: 2px 5px;">10</td><td style="padding: 2px 5px;">2000</td><td style="padding: 2px 5px;">400</td><td style="padding: 2px 5px;">30</td></tr> <tr><td style="padding: 2px 5px;">5</td><td style="padding: 2px 5px;">1000</td><td style="padding: 2px 5px;">200</td><td style="padding: 2px 5px;">15</td></tr> </table> <p><math>2430 + 1215 =</math></p>	x	200	40	3	10	2000	400	30	5	1000	200	15
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<p><math>156 \times 14 = 2184</math></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 5px;">x</td><td style="padding: 2px 5px;">100</td><td style="padding: 2px 5px;">50</td><td style="padding: 2px 5px;">6</td></tr> <tr><td style="padding: 2px 5px;">10</td><td style="padding: 2px 5px;">1000</td><td style="padding: 2px 5px;">500</td><td style="padding: 2px 5px;">60</td></tr> <tr><td style="padding: 2px 5px;">4</td><td style="padding: 2px 5px;">400</td><td style="padding: 2px 5px;">200</td><td style="padding: 2px 5px;">24</td></tr> </table> <p><math>1560 + 624 =</math></p>	x	100	50	6	10	1000	500	60	4	400	200	24	<p><math>262 \times 15 = 3930</math></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 5px;">x</td><td style="padding: 2px 5px;">200</td><td style="padding: 2px 5px;">60</td><td style="padding: 2px 5px;">2</td></tr> <tr><td style="padding: 2px 5px;">10</td><td style="padding: 2px 5px;">2000</td><td style="padding: 2px 5px;">600</td><td style="padding: 2px 5px;">20</td></tr> <tr><td style="padding: 2px 5px;">5</td><td style="padding: 2px 5px;">1000</td><td style="padding: 2px 5px;">300</td><td style="padding: 2px 5px;">10</td></tr> </table> <p><math>2620 + 1310 =</math></p>	x	200	60	2	10	2000	600	20	5	1000	300	10
x	100	50	6																						
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<p><math>142 \times 15 = 2130</math></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 5px;">x</td><td style="padding: 2px 5px;">100</td><td style="padding: 2px 5px;">40</td><td style="padding: 2px 5px;">2</td></tr> <tr><td style="padding: 2px 5px;">10</td><td style="padding: 2px 5px;">1000</td><td style="padding: 2px 5px;">400</td><td style="padding: 2px 5px;">20</td></tr> <tr><td style="padding: 2px 5px;">5</td><td style="padding: 2px 5px;">500</td><td style="padding: 2px 5px;">200</td><td style="padding: 2px 5px;">10</td></tr> </table> <p><math>1420 + 710 =</math></p>	x	100	40	2	10	1000	400	20	5	500	200	10	<p><math>193 \times 13 = 2509</math></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 5px;">x</td><td style="padding: 2px 5px;">100</td><td style="padding: 2px 5px;">90</td><td style="padding: 2px 5px;">3</td></tr> <tr><td style="padding: 2px 5px;">10</td><td style="padding: 2px 5px;">1000</td><td style="padding: 2px 5px;">900</td><td style="padding: 2px 5px;">30</td></tr> <tr><td style="padding: 2px 5px;">3</td><td style="padding: 2px 5px;">300</td><td style="padding: 2px 5px;">270</td><td style="padding: 2px 5px;">9</td></tr> </table> <p><math>1930 + 579 =</math></p>	x	100	90	3	10	1000	900	30	3	300	270	9
x	100	40	2																						
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Well done!