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## TworDigit Multtilication

Multiplying a 2 -digit number by a 1-digit number may seem difficult at first. However, if you arrange the numbers in columns, you will find how easy these problems really are.

$$
\begin{array}{ccc}
\text { EXAMPLE: } 20 \times 2=? \\
\text { STEP } 1
\end{array} \begin{gathered}
\text { STEP 2 }
\end{gathered}
$$

For each problem below, rewrite each problem so that the numbers are in columns. Proceed to multiply the problem and solve. Be sure to show all of your work.

| 1. $43 \times 2$ | $2.32 \times 3$ | 3. $11 \times 4$ <br> 101 |  |
| :---: | :---: | :---: | :---: |
|  |  | $\underline{X}$ |  |
| 4. $50 \times 1$ | 5. $14 \times 2$ | 6. $62 \times 4$ | 1 |
| $7.61 \times 7$  | 8. $13 \times 2$ | 9. $15 \times 4$ | 1 |

## TworDigit Multiplication Practice



For each problem below, multiply and regroup if necessary. Be sure to show all of your work.
$\begin{array}{r}63 \\ \times 2 \\ \hline\end{array}$
$\begin{array}{r}18 \\ \times \quad 4 \\ \hline\end{array}$
9) $\begin{array}{r}11 \\ \times 7 \\ \hline\end{array}$
$\begin{array}{r}12 \\ \times \quad 1 \\ \hline\end{array}$
$\begin{array}{r}13 \\ \times \quad 3 \\ \hline\end{array}$
$\begin{array}{r}14 \\ \times \quad 5 \\ \hline\end{array}$
$\begin{array}{r}10 \\ \times 6 \\ \hline\end{array}$
$\begin{array}{r}15 \\ \times \quad 4 \\ \hline\end{array}$

23
18) $\times 4$
$\begin{array}{r}24 \\ \times 3 \\ \hline\end{array}$
$\begin{array}{r}30 \\ \times \quad 2 \\ \hline\end{array}$
$\begin{array}{r}60 \\ \times 8 \\ \hline\end{array}$
$\begin{array}{r}77 \\ \times \quad 3 \\ \hline\end{array}$

$\begin{array}{r}12 \\ \times \quad 3 \\ \hline\end{array}$
$\begin{array}{r}17 \\ \times \quad 4 \\ \hline\end{array}$
$\begin{array}{r}86 \\ \times \quad 2 \\ \hline\end{array}$
$\begin{array}{r}29 \\ \times 8 \\ \hline\end{array}$
$\begin{array}{r}34 \\ \times 3 \\ \hline\end{array}$

How many problems can you solve in two minutes?


## Minty Multiplication

Find the product.



## Multiplication: Regrouping



Multiply the problems below.


## Multiplication: Regrouping



Multiply the problems below.


Multiplication with regrouping is the easiest way to multiply by large numbers.
Follow the steps below to learn how.
-First, multiply the numbers in the ones place.
-Write your result in the ones place and carry any number in the tens place forward.
-Next, multiply the number in the tens place by the bottom number in the ones place.
-Add the extra number you carried over to your result and write this number in the tens place.


For each problem below, follow the steps used in the example to find your solution. Be sure to show all of your work.
$\begin{array}{r}24 \\ \times \quad 13 \\ \times \quad 5 \quad \\ \hline\end{array}$
9) $\begin{array}{r}12 \\ \times \quad 5 \\ \hline\end{array}$
$\begin{array}{r}19 \\ \times \quad 3 \\ \hline\end{array}$
$\begin{array}{r}14 \\ \times \quad 4 \\ \hline\end{array}$
$\begin{array}{r}15 \\ \times 6 \\ \hline\end{array}$
$\begin{array}{r}16 \\ \times \quad 4 \\ \hline\end{array}$
6) 38
$\begin{array}{r}29 \\ \times \quad 3 \\ \hline\end{array}$
$\begin{array}{r}24 \\ \times 4 \\ \hline\end{array}$
$\begin{array}{r}28 \\ \times 4 \\ \hline\end{array}$
$\begin{array}{r}17 \\ \times 3 \\ \hline\end{array}$
$\begin{array}{r}16 \\ \times 25 \\ \hline\end{array}$
$\begin{array}{r}18 \\ \times 4 \\ \hline\end{array}$
$\begin{array}{r}27 \\ \times 2 \\ \hline\end{array}$
$\begin{array}{r}13 \\ \times 7 \\ \hline\end{array}$
$\begin{array}{r}12 \\ \times 7 \\ \hline\end{array}$
$\begin{array}{r}25 \\ \times \quad 2 \\ \hline\end{array}$
$\begin{array}{r}17 \\ \times \quad 4 \\ \hline\end{array}$
$\begin{array}{r}36 \\ \times 2 \\ \hline\end{array}$
$\begin{array}{r}18 \\ \times \quad 3 \\ \hline\end{array}$
$\begin{array}{r}24 \\ \times 3 \\ \hline\end{array}$
72
24) $\times 9$

# Lattice Multiplication <br> 1 Digits x 2 Digits 

1. 

Write one number accross the top of the grid, and the other number along the right side.

We are mulitiplying $\mathbf{7 \times 6 2}$

2.

Multiply each single digit on the top
by each single digit on the right side.
Write answer in the square. Each triangle in the square gets it's own digit. If the answer is a single digit, put 0 in the first triangle.
$7 \times 6=42$

3.

Continue multiplying each single digit on the right side by the single digits on the top.
$7 \times 2=14$

Starting on the right, add numbers diagonally and write sum next to dotted line. You might have to
 carry two-digit sums to the next place.

## Sums from right to left:

4 (The bottom right triangle never changes.)
$2+1=3$
$4+0=4$

Answer: $7 \times 62=434$


## Lattice Multiplication

2 Digits x 2 Digits

1. 

Write one number accross the top of the grid, and the other number along the right side.

We are mulitiplying $\mathbf{3 8} \mathbf{x} \mathbf{2 9}$

Multiply each single digit on the top by each single digit on the right side.

Write answer in the square. Each triangle in the square gets it's own digit. If the answer is a single digit, put 0 in the first triangle.
$3 \times 2=6$ (write 0, 6)
$8 \times 2=16$

Continue multiplying each single digit on the right side by the single digits on the top.
$3 \times 9=27$
$8 \times 9=72$

Starting on the right, add numbers diagonally and write sum next to dotted line. You might have to
 carry two-digit sums to the next place.

## Sums from right to left:

2 (The bottom right triangle never changes.)
$\mathbf{6 + 7} \mathbf{7} \mathbf{7}=\mathbf{2 0}$ (Write 0, carry the 2)
$1+6+2(+2$, the carried number) $=11$
Answer: $38 \times 29=1102$

3.

$51 \times 82$


4182
$65 \times 43$


Answer $\qquad$
$31 \times 57$

$\qquad$
$42 \times 25$


Answer $\qquad$
$52 \times 43$


Answer $\qquad$
$23 \times 45$


Answer $\qquad$

1. Matt eats 3 meals per day. With each meal he likes to eat 15 green grapes. How many grapes will Matt eat during 1 day?
2. Anna wants to eat 3 tacos at each of the 3 taco stands in her neighborhood. She wants to do this 2 days in a row. How many tacos will Anna eat in the next 2 days?
3. Timmy puts 5 slices of cheese on his lunch sandwich. Timmy eats this sandwich every day for lunch. How many slices of cheese will Timmy eat on his sandwich in total over 14 days?
4. Ruby smears 1 spoonful of peanut butter onto 2 crackers to make a peanut butter sandwich. Her 3 friends each want 5 peanut butter sandwiches. How many crackers must Ruby use?
5. Alex uses 22 pepperoni pieces on his homemade pizza. A friend requested a special pizza with a double serving of pepperoni. How many pieces of pepperoni should Alex use on the special pizza?

## Math-Go-Round

Multiplication | Difficulty: $\star \star$
Find a friend and practice your multiplication skills. Find two coins or game pieces and place them on the square labeled START. Choose one of the problems to solve and move your game piece clockwise around the board to that problem's answer.
Keep track of the number of corners you go around on each move. For each one, give yourself a point. The player with the most points at the end is the winner. Keep score with the table below.


|  | 456 | 2,107 | 140 | 169 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 840 | $\begin{array}{r} 25 \\ \times \quad 14 \\ \hline \end{array}$ | $\begin{array}{r} 16 \\ \times 13 \\ \hline \end{array}$ | $\begin{array}{r} 42 \\ \times \quad 20 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ \times 13 \\ \hline \end{array}$ | 850 |
| 1,820 | $\begin{array}{r} 50 \\ \times \quad 17 \\ \hline \end{array}$ | $\begin{array}{r} 45 \\ \times 39 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ \times \quad 10 \\ \hline \end{array}$ | $\begin{array}{r} 18 \\ \times 12 \\ \hline \end{array}$ | 208 |
| 1,376 | $\begin{array}{r} 30 \\ \times 23 \\ \hline \end{array}$ | $\begin{array}{r} 65 \\ \times 28 \\ \hline \end{array}$ | $\begin{array}{r} 16 \\ \times 16 \\ \hline \end{array}$ | $\begin{array}{r} 78 \\ \times 59 \\ \hline \end{array}$ | 216 |
| 256 | $\begin{array}{r} 24 \\ \times \quad 19 \\ \hline \end{array}$ | $\begin{array}{r} 43 \\ \times 32 \\ \hline \end{array}$ | $\begin{array}{r} 31 \\ \times \quad 27 \\ \hline \end{array}$ | $\begin{array}{r} 49 \\ \times 43 \\ \hline \end{array}$ | 350 |
|  | 837 | 1,755 | 4,602 | 690 | ${ }^{+1 \text { Point }}$ |

# Multiplication Table 

Robert the Multiplication Robot has lost a few of his screws! Help him complete the multiplication table by filling in the missing numbers.

| $\times$ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  | 4 |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  | 27 |  |  | 36 |
| 4 |  |  |  | 12 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  | 35 |  |  |  | 55 |  |
| 6 |  |  |  |  |  |  | 36 |  | 48 |  |  |  |  |
| 7 | 0 |  |  |  | 28 |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  | 40 |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  | 144 |  |

## Answer Sheets

## Double Dose! Two Digit Multiplication for 3rd Grade

Step by Step: Two-Digit Multiplication
Two-Digit Multiplication
2-Minute Multiplication
Two-Digit by One-Digit Multiplication Multiplication Regrouping Multiplication with Regrouping Lattice Method For Multiplication Multiplication Table 1-12

## TworDigit Multiplicakion

Multiplying a 2-digit number by a 1-digit number may seem difficult at first. However, if you arrange the numbers in columns, you will find how easy these problems really are.

EXAMPLE: $20 \times 2=$ ?



Arrange factors in columns.

STEP 2
STEP 3

Multiply the 1s column first.


Multiply the 10s column.

For each problem below, rewrite each problem so that the numbers are in columns. Proceed to multiply the problem and solve. Be sure to show all of your work.

| 1. $43 \times 2$ $\begin{array}{r} 101 \\ \hline 43 \\ \times \quad 2 \\ \hline 86 \end{array}$ | 2. $32 \times 3$ $\begin{array}{r} 101 \\ \hline 32 \\ \times \quad 3 \\ \hline 96 \end{array}$ | 3. $11 \times 4$ $\begin{array}{r\|r} 101 \\ \hline 11 \\ \times \quad 4 \\ \hline 44 \end{array}$ |
| :---: | :---: | :---: |
| 4. $50 \times 1$ $\begin{array}{r\|r} 101 \\ \hline \begin{array}{r} 50 \\ \times \quad 1 \\ \hline 50 \end{array} \end{array}$ | 5. $14 \times 2$ $\begin{array}{r\|r} \mid 10 & 1 \\ \hline & 14 \\ \times \quad 2 \\ \hline 28 \end{array}$ | 6. $62 \times 4$ $\begin{array}{r\|r} 10 & 1 \\ \hline & 62 \\ \times \quad 4 \\ \hline 2 & 48 \end{array}$ |
| $\begin{array}{r} 7.61 \times 7 \\ \begin{array}{r\|r\|r} \mathbf{x} & 10 \\ \hline & 6 & 1 \\ \times & 7 \\ \hline 4 & 27 \end{array} \end{array}$ | 8. $13 \times 2$ $\begin{array}{r} 101 \\ \hline 13 \\ \times \quad 2 \\ \hline 26 \end{array}$ | 9. $15 \times 4$ $\begin{array}{r} 101 \\ \hline 15 \\ \times \quad 4 \\ \hline 60 \end{array}$ |

## TworDigit Multriplication Practice



For each problem below, multiply and regroup if necessary. Be sure to show all of your work.

1) $\begin{array}{r}63 \\ \times \quad 2 \\ \hline 126\end{array}$
$\begin{array}{r}18 \\ \times \quad 4 \\ \hline 72\end{array}$
2) $\begin{array}{r}11 \\ \times \quad 7 \\ \hline 77\end{array}$
3) $\begin{array}{r}12 \\ \times 12\end{array}$
4) $\begin{array}{r}13 \\ \times \quad 3 \\ \hline 39\end{array}$
5) $\begin{array}{r}14 \\ \times \quad 5 \\ \hline 70\end{array}$
$\begin{array}{r}10 \\ \times \quad 6 \\ \hline 60\end{array}$
$\begin{array}{r}15 \\ \times \quad 4 \\ \hline 60\end{array}$
$\begin{array}{r}47 \\ \times \quad 3 \\ \hline 141\end{array}$
6) $\begin{array}{r}23 \\ \times 4 \\ \hline 92\end{array}$
$\begin{array}{r}24 \\ \times \quad 3 \\ \hline 72\end{array}$
$\begin{array}{r}30 \\ \times \quad 2 \\ \hline 60\end{array}$
$\begin{array}{r}60 \\ \times 8 \\ \hline 480\end{array}$
$\begin{array}{r}77 \\ \times \quad 3 \\ \hline 231\end{array}$
7) $\begin{array}{r}42 \\ \times \quad 5 \\ \hline 210\end{array}$
$\begin{array}{r}12 \\ \times \quad 3 \\ \hline 36\end{array}$
$\begin{array}{r}17 \\ \times \quad 4 \\ \hline 68\end{array}$
8) $\begin{array}{r}86 \\ \times 2 \\ \hline 172\end{array}$
$\begin{array}{r}29 \\ \times \quad 8 \\ \hline 232\end{array}$
$\begin{array}{r}34 \\ \times \quad 3 \\ \hline 102\end{array}$
name Date

# Two-Minute Math 

How many problems can you solve in two minutes?

| 4 |
| ---: | ---: | ---: | ---: | ---: |
| $\times \quad 4$ |
| 16 |


| 10 |
| ---: |
| $\times \quad 5$ |
| 50 |

$\begin{array}{r}4 \\ \times \quad 8 \\ \hline 32\end{array}$
$\begin{array}{r}11 \\ \times \quad 2 \\ \hline 22\end{array}$

$\begin{array}{r}11 \\ \times \quad 6 \\ \hline 66\end{array}$
$\begin{array}{r}5 \\ \times \quad 5 \\ \hline 25\end{array}$
$\begin{array}{r}7 \\ \times \quad 6 \\ \hline 42\end{array}$
$\begin{array}{r}12 \\ \times \quad 3 \\ \hline 36\end{array}$
$\begin{array}{r}10 \\ \times \quad 7 \\ \hline 70\end{array}$
$\begin{array}{r}12 \\ \times \quad 5 \\ \hline 60\end{array}$
$\begin{array}{r}10 \\ \times \quad 1 \\ \hline 10\end{array}$
$\begin{array}{r}2 \\ \times \quad 8 \\ \hline 16\end{array}$
$\begin{array}{r}8 \\ \times \quad 5 \\ \hline 40\end{array}$
$\begin{array}{r}3 \\ \times \quad 1 \\ \hline 3\end{array}$
$\begin{array}{r}9 \\ \times \quad 0 \\ \hline 0\end{array}$
$\begin{array}{r}10 \\ \times \quad 4 \\ \hline 40\end{array}$

$\begin{array}{r}12 \\ \times \quad 4 \\ \hline 48\end{array}$
$\begin{array}{r}12 \\ \times \quad 6 \\ \hline 72\end{array}$
$\begin{array}{r}11 \\ \times \quad 4 \\ \hline 44\end{array}$
$\begin{array}{r}4 \\ \times \quad 6 \\ \hline 24\end{array}$
$\begin{array}{r}2 \\ \times \quad 7 \\ \hline 14\end{array}$
$\begin{array}{r}10 \\ \times \quad 6 \\ \hline 60\end{array}$
$\begin{array}{r}4 \\ \times \quad 3 \\ \hline 12\end{array}$
$\begin{array}{r}1 \\ \times \quad 1 \\ \hline 1\end{array}$
$\begin{array}{r}9 \\ \times \quad 5 \\ \hline 45\end{array}$
$\begin{array}{r}11 \\ \times \quad 3 \\ \hline 33\end{array}$
$\begin{array}{r}9 \\ \times \quad 4 \\ \hline 36\end{array}$
$\begin{array}{r}8 \\ \times \quad 3 \\ \hline 24\end{array}$
$\begin{array}{r}7 \\ \times \quad 7 \\ \hline 49\end{array}$
$\begin{array}{r}8 \\ \times \quad 0 \\ \hline 0\end{array}$
$\begin{array}{r}5 \\ \times \quad 4 \\ \hline 20\end{array}$
$\begin{array}{r}0 \\ \times \quad 5 \\ \hline 0\end{array}$
$\begin{array}{r}12 \\ \times \quad 1 \\ \hline 12\end{array}$
$\begin{array}{r}11 \\ \times \quad 3 \\ \hline 33\end{array}$
$\begin{array}{r}5 \\ \times \quad 6 \\ \hline 30\end{array}$
$\begin{array}{r}4 \\ \times \quad 7 \\ \hline 28\end{array}$
$\begin{array}{r}10 \\ \times \quad 8 \\ \hline 80\end{array}$


Find the product


## Multiplication: Regrouping



## Multiplication: Regrouping



Multiply the problems below.


## Multiplication with Regrouping

Multiplication with regrouping is the easiest way to multiply by large numbers.
Follow the steps below to learn how.
-First, multiply the numbers in the ones place.
-Write your result in the ones place and carry any number in the tens place forward.
-Next, multiply the number in the tens place by the bottom number in the ones place.
-Add the extra number you carried over to your result and write this number in the tens place.
Example:

## Multiply the

ones place.
$7 \times 3=21$
$\begin{array}{r}17 \\ \times \quad 3 \\ \hline 1\end{array}$

## ${ }^{2} 17$

${ }^{2} 17$
${ }^{2} 17$


For each problem below, follow the steps used in the example to find your solution. Be sure to show all of your work.

| 24 | 13 |
| ---: | ---: |
| $\times \quad 3$ | $5)$ |
| 72 | 4 |
| 52 |  |


21) $\begin{array}{r}15 \\ \times \quad 6 \\ \hline 90\end{array}$
2) $\begin{array}{r}16 \\ \times \quad 4 \\ \hline 64\end{array}$
$\begin{array}{r}38 \\ \times \quad 2 \\ \hline 76\end{array}$
$\begin{array}{r}29 \\ \times \quad 3 \\ \hline 87\end{array}$
14) $\begin{array}{r}24 \\ \times 4 \\ \hline 96\end{array}$
$\begin{array}{r}28 \\ \times \quad 4 \\ \hline 112\end{array}$
$\begin{array}{r}17 \\ \times \quad 3 \\ \hline 51\end{array}$
$\begin{array}{r}16 \\ \times \quad 2 \\ \hline 32\end{array}$
$\begin{array}{r}35 \\ \times \quad 2 \\ \hline 70\end{array}$
11) $\begin{array}{r}18 \\ \times \quad 4 \\ \hline 72\end{array}$
15) $\begin{array}{r}27 \\ \times \quad 2 \\ \hline 54\end{array}$
19) $\begin{array}{r}13 \\ \times 7 \\ \hline 91\end{array}$
23) $\begin{array}{r}12 \\ \times 7 \\ \hline 84\end{array}$
$\begin{array}{r}25 \\ \times \quad 2 \\ \hline 50\end{array}$
$\begin{array}{r}17 \\ \times \quad 4 \\ \hline 68\end{array}$
$\begin{array}{r}36 \\ \times \quad 2 \\ \hline 72\end{array}$

| 18 | 24 |
| ---: | ---: |
| $\times \quad 3$ | $20) \times \quad 3$ |
| 54 | 72 |

72


Answer $\qquad$
$65 \times 43$


2795

$$
31 \times 57
$$



Answer 1767
$42 \times 25$


Answer 1050
$52 \times 43$


Answer 2236
$23 \times 45$


Answer
1035

# Multiplication Table 

Robert the Multiplication Robot has lost a few of his screws! Help him complete the multiplication table by filling in the missing numbers.

| $\mathbf{x}$ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2 | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 3 | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| 4 | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| 5 | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| 6 | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| 7 | 0 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| 8 | 0 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| 9 | 0 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| 10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| 11 | 0 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| 12 | 0 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |

