

Multiplication Tricks

UVU Math Lab

Multiplication by 7:

Table Method: Write a table using the following patterns.

Step 1:

7	4	1
8	5	2
9	6	3



Step 2:

→

07	14	21
28	35	42
49	56	63

Step 3:

7 ×

1= 07	2= 14	3= 21
4= 28	5= 35	6= 42
7= 49	8= 56	9= 63

Multiplication by 8:

Table Method:

Step 1:

Count down from 0 to 8, adding an extra 4.

Step 2:

Count up from 0 by even numbers. Start over after 8.

8 × 1 =	0 8
2 =	1 6
3 =	2 4
4 =	3 2
5 =	4 0
6 =	4 8
7 =	5 6
8 =	6 4
9 =	7 2
10 =	8 0

Multiplication by 12:

Table Method:

Step 1:

Count down from 0 to 14, skipping 5 and 11.

Step 2:

Count down from 0 by even numbers. Start over after 8.

12 × 0 =	0 0
1 =	1 2
2 =	2 4
3 =	3 6
4 =	4 8
5 =	6 0
6 =	7 2
7 =	8 4
8 =	9 6
9 =	10 8
10 =	12 0
11 =	13 2
12 =	14 4

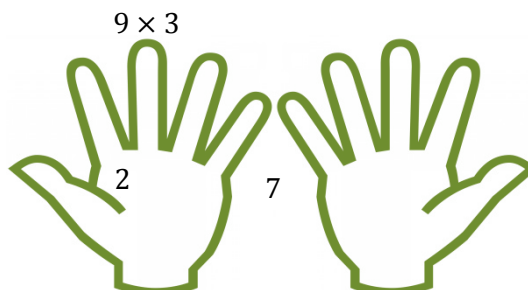
Multiplication by 9:

Table Method:

9 × 1 =	0 9
2 =	1 8
3 =	2 7
4 =	3 6
5 =	4 5
6 =	5 4
7 =	6 3
8 =	7 2
9 =	8 1
10 =	9 0

Hand Method:

1. Hold up ten fingers.
2. Count over from the left the number of fingers equal to the multiplier.
3. Hold that finger down.
4. The number of fingers to the left of the multiplier is the tens place of the solution.
5. The number of fingers to the right is in the ones place of the solution.



Division Tricks

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A number is divisible by...	if the...	Example:
2	last digit is even.	168, since the last digit is even.
3	sum of the digits is divisible by 3.	168, since $1 + 6 + 8 = 15$ and 15 is divisible by 3.
4	number formed by the last two digits is divisible by 4.	316, since 16 is divisible by 4.
5	last digit is 5 or 0.	195 or 200 since the last digits are 5 and 0 respectively.
6	number is divisible by both 2 and 3.	168, since it is divisible by both 2 and 3 as shown above.
8	number formed by the last three digits is divisible by 8.	7120, since 120 is divisible by 8.
9	sum of the digits is divisible by 9.	549, since $5 + 4 + 9 = 18$ and is divisible by 9.

More handouts like this are available at: www.uvu.edu/mathlab/mathresources/