x	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
0	0	0	0	0	0	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	13	14	15	16	17	18
2	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
3	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54
4	0	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72
5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
6	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108
7	0	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	112	119	126
8	0	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144
9	0	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144	153	162
10	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
11	0	11	22	33	44	55	66	77	88	99	110	121	132	143	154	165	176	187	198
12	0	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
13	0	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195	208	221	234
14	0	14	28	42	56	70	84	98	112	126	140	154	168	182	196	210	224	238	252
15	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
16	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288
17	0	17	34	51	68	85	102	119	136	153	170	187	204	221	238	255	272	286	306
18	0	18	36	54	72	90	108	126	144	162	180	198	216	234	252	270	288	306	324
19	0	19	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	325	342
20	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360

Rules to Help Learn Multiplication Facts

Rule #1 – Any number times 1 equals the other number.

5 x 1 = 5 1 x 7 = 7

Rule #2 – Any number times 10 equals the other number plus a 0.

50 x 1 = 50 1 x 70 = 70

Rule #3 – Any number times 11 equals the other number doubled.

5 x 11 =55 11 x 7 = 77

Rule #4 – Skip count when multiplying by 2's. (2, 4, 6, 8, 10, 12, 14, 16, 18)

5 x 2 = 10 2 x 7 = 14

Rule #5 – You can remember the 4's by doubling twice.

5 x 4 = double 5 =10 so 10 +10=20 2 x 7 = double 7=14 so 14+14=28

Rule #6 – When you multiply 6 by an even number, they both end in the same digit.

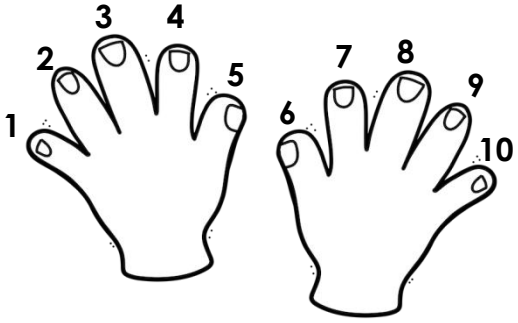
2 x 6 =1**2** **4** x 6 = 2**4** **6** x 6 = 3**6** **8** x 6 = 4**8**

Rule #7 – Remember the sequence 5-6-7-8 will help you remember 7 x 8. This means 56 = 7 x 8.

Rule #8 – Skip count when multiplying by 5's. (5, 10, 15, 20, 25, 30, 35, 40, 45)

5 x 5 = 25 5 x 7 = 35

Rule #9 – Use your fingers. Bend down the finger you are multiplying by 9.



For 5 x 9, bend down finger #5. You have 4 fingers on the left side of the bent finger and 5 fingers on the right side of the bent finger. The answer is 45.

For 9 x 7, bend down finger 7. You have 6 fingers on the left side of the bent finger and 3 fingers on the right side of the bent finger. The answer is 63.

A Fun Way to Impress Your Friends

This multiplication trick only works with a very specific type of problem, but you can really impress your family and friends by solving this type of multiplication problem in record time if you are the only one that knows the 'trick.'

The trick works when you multiply a 2 digit number by a 2 digit number if:

- the two digits in the tens place add up to 10
- the 2 digits in the ones place repeat

Example Problems

23 x 83 2 + 8 = 10 Both numbers in the ones place are 3's.	91 x 11 9 + 1 = 10 The number 1 is in the ones place.	75 x 35 7 + 3 = 10 The ones place has the number 5.	64 x 44 6 + 4 = 10 Both numbers in the ones place are 4's.

Here is how to solve the problem.

Step #1 -Multiple the numbers in the ones place and write down your answer in the ones and tens place.

thousands	hundreds	tens	ones

For 23 x 83, multiply 3 times three. The answer is 9. Write nine in the ones place and place a zero in the tens place.

thousands	hundreds	0	9

Step #2 – Multiply the two numbers in the tens place and then add one of the numbers in the ones place to that total.

For 23 x 83, multiply 2 x 8 and then add 3.

2 x 8 = 16 + 3 = 19 - Place this number in the thousands and hundreds place.

1	9	0	9

23 x 83 = 1909

On the next page, you will find a list of problems that follow this pattern. Give them a try.

Multiplication Problems

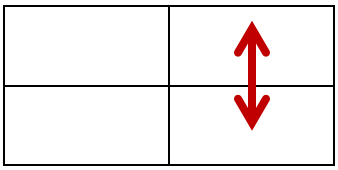
19 x 99 =	35 x 75 =	67 x 47 =	60 x 40 =
81 x 21 =	28 x 88 =	56 x 56 =	39 x 79 =
22 x 82 =	75 x 35 =	57 x 57 =	74 x 34 =
43 x 63 =	94 x 14 =	86 x 26 =	48 x 68 =

Another Strategy for Multiplying Two-Digit by Multiplying Two Digit Numbers

This method has three steps and is not quite as easy to do in your head as the previous method. It is not as limited as the first trick and you can use it with any 2-digit by 2-digit multiplication problem.

Step #1

Multiply the 2 numbers in the ones places. Place the answer you get in the ones place in the ones place column. You must remember the number you get in the tens place.



Example

Step #1

6	2
5	7

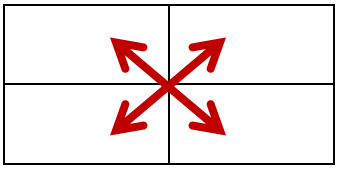
$2 \times 7 = 14$

Write the 4 down and remember the 1.

			4

Step #2

Multiply the numbers at opposite corners and add them together. Then add the number you remembered from Step #1. Just like in Step #1, write the number you get in the ones place in the next box (tens place) and remember the other number.



Step #2

6	2
5	7

$6 \times 7 = 42$

$2 \times 5 = 10$

$42 + 10 = 52$

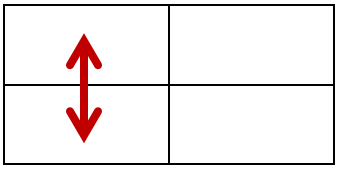
$52 + 1 = 53$

Write the 3 down and remember the 5.

		3	4

Step #3

Multiply the two numbers in the left column and add the number you remembered from Step #3.



Example

Step #3

6	2
5	7

6 x 5 = 30

30 + 5 = 35

3	5	3	4

This is not really a trick but rather a method for being able to do mental math.
The method follows traditional multiplication steps.