

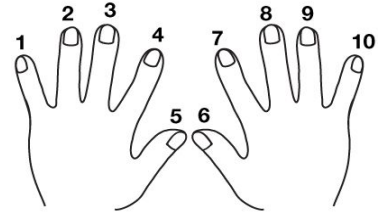
The Nines Trick

Multiply any single-digit number by nine using this trick. Here's how....

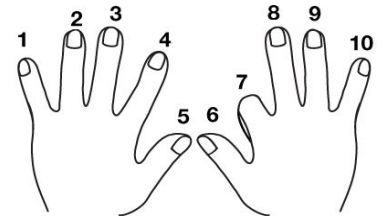
Let's say you wanted to multiply 9×7 .

Step 1: Hold up all 10 of your fingers.

Imagine they're numbered 1 through 10, as you see in the picture.



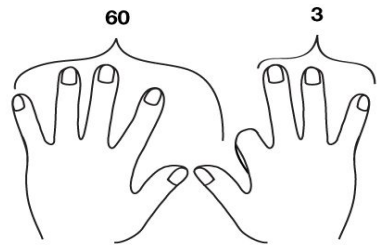
Step 2: Since you're multiplying 9×7 , you fold down the seventh finger, like this.



Step 3: Count the number of fingers to the left of the folded finger (6).

Count the number of fingers to the right of the folded finger (3).

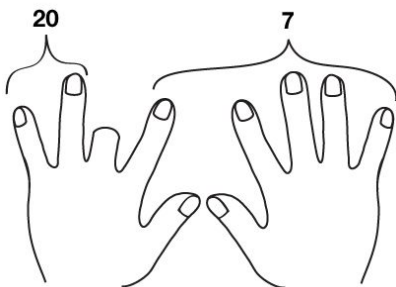
Your answer is 63.



$$9 \times 7 = 63$$

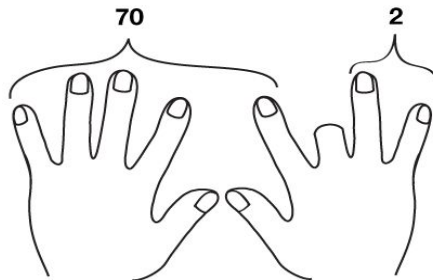
Remember: Whatever number you want to multiply by nine, that's the finger you fold down.

If you wanted to multiply 9×3 , your fingers would look like this:



$$9 \times 3 = 27$$

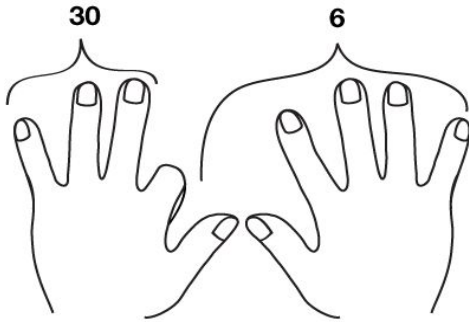
If you wanted to multiply 9×8 , your fingers would look like this:



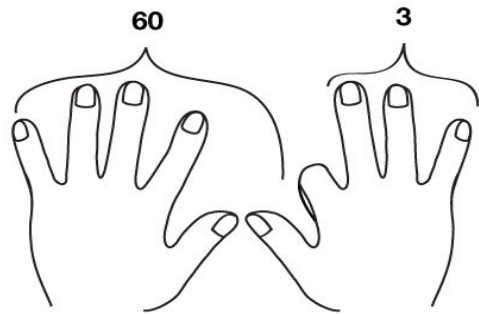
$$9 \times 8 = 72$$

The Nines Trick

Tell which multiplication fact is shown by the fingers in these pictures. Write the multiplication fact and the answer.



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Use the nines trick to solve these multiplication facts.

$9 \times 8 = \underline{\quad}$

$9 \times 3 = \underline{\quad}$

$5 \times 9 = \underline{\quad}$

$6 \times 9 = \underline{\quad}$

$9 \times 9 = \underline{\quad}$

$9 \times 2 = \underline{\quad}$

$4 \times 9 = \underline{\quad}$

$9 \times 7 = \underline{\quad}$

Can you use the nines trick to solve 6×7 ? Explain.

Can you use the nines trick to solve 12×9 ? Explain.

Another Nines Trick

Step 1: Make a column of numbers on your paper from 0 through 9.

0
1
2
3
4
5
6
7
8
9

Step 2: Next to your column, you're going to make another column of numbers. This time, count backwards from 9 all the way down to 0.

0 9
1 8
2 7
3 6
4 5
5 4
6 3
7 2
8 1
9 0

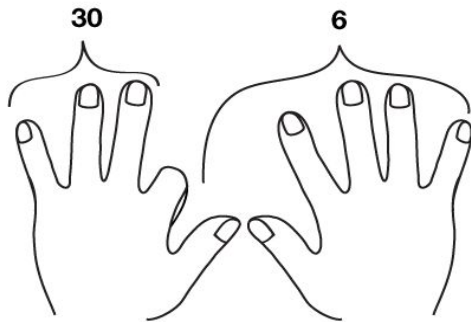
Step 3: You've just written all the answers to your nines times tables. Write the facts next to the numbers.

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

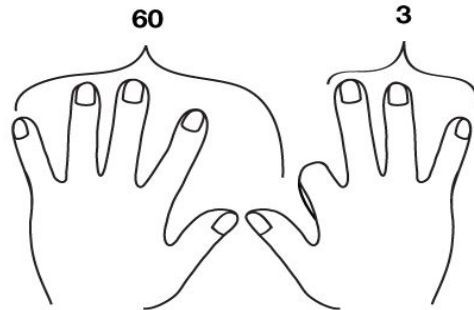
ANSWER KEY

The Nines Trick

Tell which multiplication fact is shown by the fingers in these pictures. Write the multiplication fact and the answer.



$$9 \times 4 = 36$$



$$9 \times 7 = 63$$

Use the nines trick to solve these multiplication facts.

$$9 \times 8 = \underline{72}$$

$$9 \times 3 = \underline{27}$$

$$5 \times 9 = \underline{45}$$

$$6 \times 9 = \underline{54}$$

$$9 \times 9 = \underline{81}$$

$$9 \times 2 = \underline{18}$$

$$4 \times 9 = \underline{36}$$

$$9 \times 7 = \underline{63}$$

Can you use the nines trick to solve 6×7 ? Explain.

No. You can only use the nines trick when multiplying by 9.

Can you use the nines trick to solve 12×9 ? Explain.

No. The nines trick only works up to 9×10 . You don't have enough fingers to make it work up to 9×12 .