



# Multiplication – Review

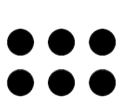
**Math Concepts:** Multiplying by 1 - 9  
**Materials:** None  
**Players:** 1+

These teaching methods provide structured strategies for learning single-digit multiplication. Your student should already be good at:

- doubling any number - this is a natural transition from adding twins (e.g.  $4 + 4 = 8 \rightarrow 2 \times 4 = 8$ )
- skip counting by any number - this is a reliable way to multiply, and it is great addition practice
- multiplying by 5 and 10 - these are easy to learn, help with place value, and help with other times facts

–  $3 \times 4 = 4 \times 3$  –

Your child is so familiar with addition that they are comfortable with  $2 + 3$  being the same as  $3 + 2$ . Although not as obvious, the same is true for multiplication.



● ● This illustration shows that two rows of three is the same as three rows of two – you’re just changing your point of view! It doesn’t matter which order you multiply two numbers, you get the same answer.

It's great that this cool observation means that your students need to master only about half as many multiplication facts – once a student knows  $3 \times 4$ , they also know  $4 \times 3$ .

– SQUARES –

Just as addition twins are favorite addition math facts, squares are often favorites for multiplication. Learning these provides another foundation for learning other multiplication facts.

– 1 MORE OR 1 LESS –

When combined with the other earlier skills, the strategy of using '1 more' or '1 less' is effective for calculating the remaining multiplication facts.

For example,  $9 \times 7$  is one 7 less than  $10 \times 7$ . So  $9 \times 7 = 70 - 7 = 63$ . This works for all 9's. Similarly,  $3 \times 7$  is one more 7 than doubling 7, so  $3 \times 7 = 7 + 14 = 21$ . This works for all 3's.

– MULTIPLYING BY 9 –

Although multiplying by 9 is covered by the last strategy, they are fun to learn in their own right. If you write the multiples of 9 in order, you’ll see the tens digit is always one less than the number you are multiplying by and the ones digit plus the tens digit always adds up to 9!

