

Grade 3 - Multiplication and Division Facts Within 100 - Lesson

Common Core 3.OA.C.7 · maths-pdf.fr/en/

This **multiplication facts lesson** for 3rd Grade covers multiplication and division facts within 100 (Common Core 3.OA.C.7), with a free PDF to print.

Multiplication facts are the products of two one-digit numbers, such as $6 \times 7 = 42$. Each fact belongs to a fact family of three numbers that makes two multiplication facts and two division facts. Third graders use skip counting, doubles, and fives and nines patterns to know every product and quotient within 100 fluently.

Grade 3 · Common Core State Standards: **3.OA.C.7**

Key facts in this multiplication facts lesson

Key facts

- A fact family uses three numbers: 6, 7, and 42 make $6 \times 7 = 42$, $7 \times 6 = 42$, $42 \div 6 = 7$, and $42 \div 7 = 6$.
- Division is finding a missing factor: $42 \div 7$ asks 7 times what number is 42.
- Products of 5 end in 0 or 5, and the digits of a product of 9 add to 9.
- Doubles help with 2s and 4s. Add one more group to move from a known fact to the next one.
- Fluency means knowing the facts from memory, quickly and correctly.

What are multiplication facts?

A multiplication fact is a product of two one-digit numbers, like $6 \times 7 = 42$. Third graders learn all of them, up to $9 \times 9 = 81$ and the 10s. A good goal is to know each fact right away, and the strategies below help you get there.

×	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9
2	2	4	6	8	10	12	14	16	18
3	3	6	9	12	15	18	21	24	27
4	4	8	12	16	20	24	28	32	36
5	5	10	15	20	25	30	35	40	45
6	6	12	18	24	30	36	42	48	54
7	7	14	21	28	35	42	49	56	63
8	8	16	24	32	40	48	56	64	72
9	9	18	27	36	45	54	63	72	81

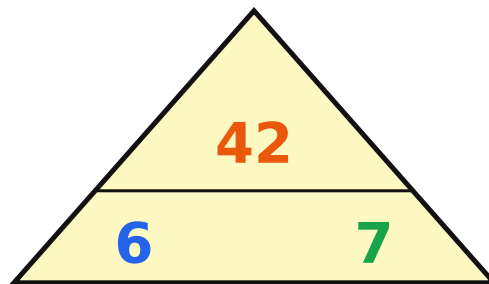
Row 6 and column 7 meet at 42. Every product in the chart is a multiplication fact.

Factor and product

The numbers you multiply are **factors**. The answer is the **product**. In $6 \times 7 = 42$, 6 and 7 are factors and 42 is the product.

What is a fact family?

Three numbers can make a team. The numbers 6, 7, and 42 give four facts that all belong together.



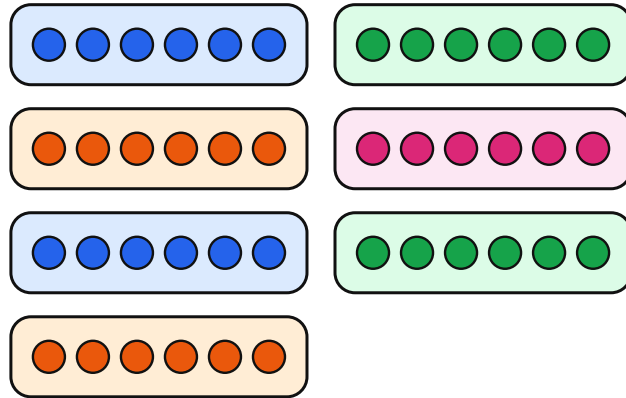
Fact family triangle. The product goes on top. The two factors go on the bottom.

Multiplication	Division
$6 \times 7 = 42$	$42 \div 6 = 7$
$7 \times 6 = 42$	$42 \div 7 = 6$

How is division connected to multiplication?

Division finds how many are in each group, or how many groups there are. Think of the missing factor. To solve $42 \div 7$, ask, "7 times what number is 42?" Since $7 \times 6 = 42$, the answer is

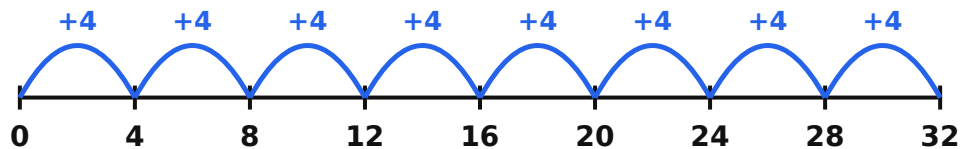
6.



42 dots shared equally into 7 groups of 6. So $42 \div 7 = 6$ and $42 \div 6 = 7$.

What strategies help you remember the facts?

- **Skip count.** For the 4s, count 4, 8, 12, 16, and so on.
- **Double it.** The 2s are doubles: $2 \times 9 = 9 + 9 = 18$. For the 4s, double twice.
- **Fives.** Products end in 0 or 5: $5 \times 8 = 40$.
- **Nines.** Subtract 1 from the other factor to get the tens digit. The two digits add to 9. For 9×6 , the tens digit is 5 and the ones digit is 4, so the product is 54.
- **Add one more group.** Know $7 \times 7 = 49$? Then $7 \times 8 = 49 + 7 = 56$.



Skip count by 4 for eight hops: 4, 8, 12, 16, 20, 24, 28, 32. So $4 \times 8 = 32$.

How do you find a missing number?

1. Write the fact with a letter for the unknown, like $8 \times n = 24$.
2. Think of the related division fact: $24 \div 8$.
3. Recall the multiplication fact: $8 \times 3 = 24$.
4. Check by multiplying: $n = 3$.

Multiplication facts lesson: questions and answers

What is a multiplication fact?

It is the product of two one-digit numbers, like $8 \times 4 = 32$. Third graders learn all the facts from

0×0 to 10×10 so they can multiply quickly.

What is a fact family?

A fact family is a group of related facts that use the same three numbers. The numbers 3, 8, and 24 make $3 \times 8 = 24$, $8 \times 3 = 24$, $24 \div 3 = 8$, and $24 \div 8 = 3$.

How do you divide using multiplication?

Think of a missing factor. To find $36 \div 4$, ask what number times 4 is 36. Since $4 \times 9 = 36$, the quotient is 9.

What is the trick for the 9s facts?

For 9×7 , subtract 1 from 7 to get 6 tens. The digits add to 9, so the ones digit is 3. The product is 63.

How can I learn the facts I forget?

Use a fact you know. If you forget 6×8 , find $5 \times 8 = 40$ and add one more group of 8 to get 48. Practice a few facts each day and check with a multiplication chart.

How to use this multiplication facts lesson

Read the definitions first, then follow the worked method line by line and redo the example on paper without looking. When every step makes sense, move on to the worksheet, then check yourself with the quiz.

Download the multiplication facts lesson as a PDF with the button below and keep it with your notes.

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