

Grade 1 · The Equal Sign and Word Problems · Lesson

Common Core 1.OA.A.2, 1.OA.D.7, 1.OA.D.8 · mathovore.fr

The equal sign means "is the same amount as." An equation is true when both sides have the same value, like $6 + 2 = 5 + 3$, and false when they do not. To find a missing number, ask what makes both sides equal. Three numbers can be added in any order, so look for a ten first.

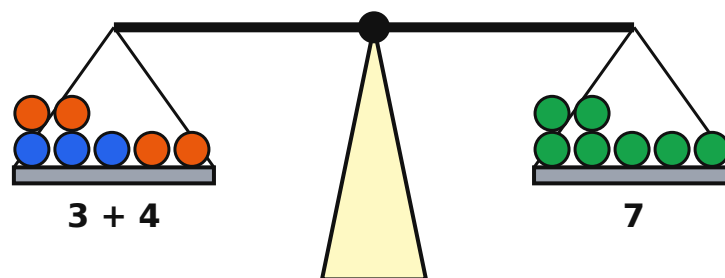
Grade 1 Common Core: 1.OA.A.2 · 1.OA.D.7 · 1.OA.D.8

Key facts:

- The equal sign = means both sides have the same value.
- Find the value of each side to decide if an equation is true or false.
- The missing number can be in any spot: $8 + ? = 13$, $? + 5 = 11$, or $14 - ? = 9$.
- To add three numbers, add two that make 10 first.

What does the equal sign mean?

The equal sign = means "is the same amount as." It does not mean "the answer comes next." Picture a scale. If both sides hold the same amount, the scale sits level. That is what an equation says: the left side and the right side are the same.



The scale is level, so $3 + 4 = 7$ is true.

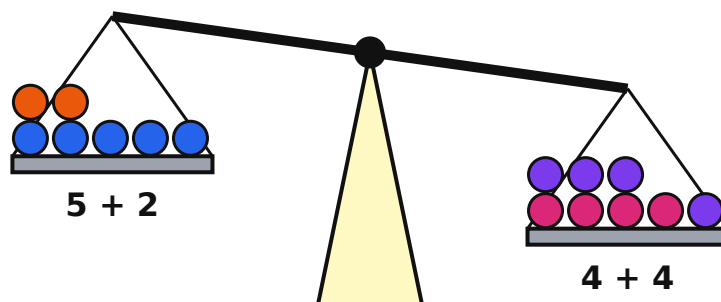
Equal sign

The sign = tells us that both sides have the **same value**. You can read $7 = 3 + 4$ the same

way as $3+4=7$.

How can you tell if an equation is true or false?

Find the value of each side. If the two values match, the equation is **true**. If they do not match, it is **false**. Look at $5+2=4+4$. The left side is 7. The right side is 8. The scale tips, so the equation is false.

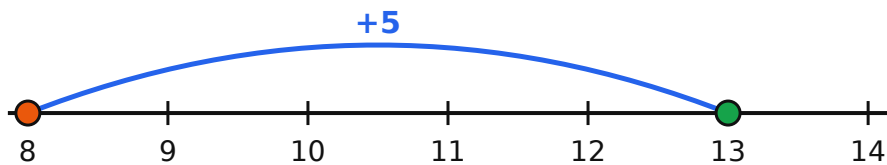


Left is 7 and right is 8, so $5+2=4+4$ is false.

Equation	Left side	Right side	True or false?
$8=5+3$	8	8	True
$9-4=2+2$	5	4	False
$7+3=6+4$	10	10	True

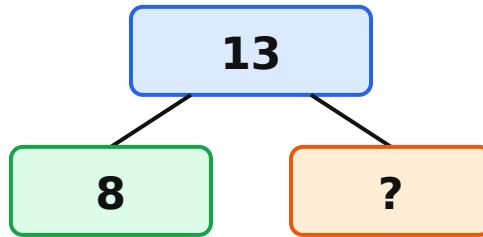
How do you find a missing number?

A missing number can hide in any spot, such as $8+?=13$, $?+5=11$, or $14-?=9$. Ask: what number makes both sides equal? For $8+?=13$, start at 8 and count up to 13. You jump 5.



Count up from 8 to 13. The jump is 5, so $8+5=13$.

A part-part-whole mat helps too. The whole is 13 and one part is 8. The other part is the missing number.



Whole 13, one part 8. The missing part is 5.

How do you add three numbers?

Look for two numbers that make 10. Add them first. Then add the last number. You can add numbers in any order and get the same sum.



4 blue



6 yellow



5 green

4 + 6 makes 10. Then 10 + 5 makes 15.

Steps for a word problem

1. Read the story and find the question.
2. Draw a picture or a mat.
3. Write an equation. Use ? for the unknown number.
4. Solve it, then check your answer.

Example. Diego has 9 toy cars. A friend gives him some more. Now he has 15. The equation is $9 + ? = 15$. Count up from 9 to 15: that is 6. Check: $9 + 6 = 15$. Diego got **6** cars.

The Equal Sign and Word Problems: frequently asked questions

Does the equal sign mean the answer comes next?

No. The equal sign means both sides have the same value. That is why $9 = 4 + 5$ is a true equation, even though the total comes first.

How do I know if an equation is true or false?

Work out the value of the left side and the value of the right side. If they match, the equation is true. If they are different, it is false.

How do I find the missing number in $12 - ? = 7$?

Ask what you take away from 12 to leave 7. Count up from 7 to 12 and you jump 5. So the missing number is 5, because $12 - 5 = 7$.

Can I add three numbers in any order?

Yes. The sum stays the same. Try to add two numbers that make 10 first, then add the last number. It makes the work easier.

How big can the numbers get in these problems?

Sums stay within 20. A first grader adds up to three numbers and finds missing numbers in equations such as $7 + ? = 16$.