MATHS FIELD GUIDE · GRADE 1

The equal sign means the same value

OPENING PROBLEM

Can either side be read first?

A 

B 

02 Balance the two sides
03 Rules and worked cases
04 Balance two plates
05 Pair first, then compare
06 Check your reasoning

ILLUSTRATED PROBLEM SHEET

Balance the two sides

The equals sign says the two sides have the same value.

1



Can either side be read first?

Yes. Each row has two.

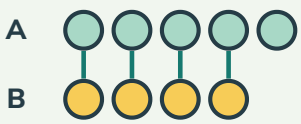
2

3 + 2
↓
5
↓
4 + 1

Can different additions have the same total?

Yes. Both describe five.

3



How could adding just one make the rows equal?

Add one to B. Adding one to A would increase the difference.

4

6 = 4 + □
↓
4 + 2 = 6

What fits the empty square?

Two. Four and two match the six on the other side.

3 + 4 = 7
the statement reads both ways.

3 + 4 = 4 + 3
swap the two addends and the total stays 7.

CHAPTER PROBLEM

Is 6 = 4 + 2 true? Why?

Yes. Both sides have value six.

MATHS REFERENCE · GRADE 1

The equal sign means the same value

The = sign means “has the same value as”.

It does not mean “the answer comes next”. Both sides must match.

Four cases to recognise

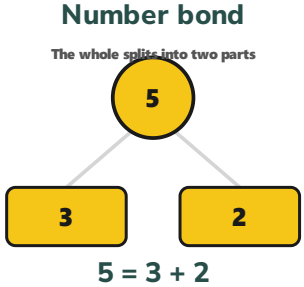
Situation	What to do and why
2 + 4 = __ + 1	Both sides must be six. Put five in the box.
7 = 3 + 4	This reads correctly from left to right. Seven and the sum name the same amount.
3 + 2 = 4 + 2?	Five differs from six. Remove one on the right to make a true equation.
Add one counter to each equal pile	Both totals grow by one and remain equal.

Read the model

Match a sum and an amount

Three and two make five.

So 3 + 2 = 5 is true. Both sides have value five.



Read it the other way

5 = 3 + 2 is also true.

Five has the same value as three and two together.

value The amount a number or calculation stands for.
equal sign The sign =, meaning the same value.
true Correct when we check it.

A ○○○○○
B ○

What is the whole?

Start at five and count one more. Six.

WORKED INVESTIGATION

Balance two plates

On one plate put three red buttons and two blue ones. Put five buttons on the other. Pair them one to one. That is why 3 + 2 = 5.

Look at this part	What it tells you
3 + 2	five buttons
4 + 1	five buttons
3 + 2 = 4 + 1	equal totals

Work it through

Write 5 = 2 + 3. Read it as “five has the same value as two plus three”. The two sides may trade places.

Catch the mistake

Mira writes 4 + 1 = 6 because an answer should get bigger. Pair five buttons with six. One is left over, so the equality fails.

Compare the cases

Different sums can match

Four and one make five. Two and three also make five.

So 4 + 1 = 2 + 3. The written sides look different, but their values match.

A ●●●●●

B ●●●●●

A false number sentence

3 + 1 = 5 is not true.

Three and one make four. Four and five are different amounts.

Change one condition

Add one button to each plate. Both totals change from five to six, and the two sides are still equal.

Find what will make it true

To make 2 + ☐ = 6 true, the empty box needs four.

Two and four make six. Build both amounts to check.

Use the sign carefully

Do not write 2 + 3 = 5 + 1 = 6.

Five is not equal to six. Write two separate true sentences instead.

A ○○○○

B ○○

What changed from five and one?

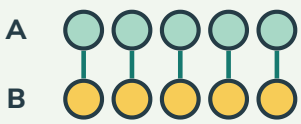
One moved to the second row. There are still six.

ILLUSTRATED PROBLEM SHEET

Pair first, then compare

A pair uses one object from each set. Unpaired objects show the difference.

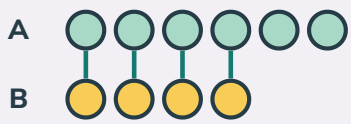
1



Which row has more?

Every counter finds one partner. The rows are equal.

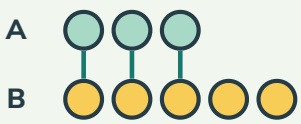
2



How many extra are in A?

Match four pairs. Two in A are left.

3



How could you make A equal B?

Add two to A, or take two from B.

4



Move one counter from A to B. What happens?

The rows become three and three. Moving one closes a gap of two.

Add one to both rows
the gap stays fixed.

Add one only to the shorter row
the gap shrinks by one.

CHAPTER PROBLEM

Is 1 + 3 = 2 + 2 true?

Yes. Each side makes four.

QUESTION BANK · FOLD OR COVER THE RIGHT COLUMN

Check your reasoning

Try the problem	Solution and reasoning
01 Take one from each side of a balance with five on each side. What happens?	Four remain on each side. Equality is preserved.
02 Two groups differ by one. Can moving one counter from the larger group make them equal?	No. The group with more will swap places with the group with fewer.
03 What makes 3 + ☐ = 7 true?	Four. Three and four make seven.
04 Fill the box in 2 + ☐ = 3 + 2. Explain how you chose the number.	The right side is five. The left already has two and needs three more. The box is 3.
05 Fill 8 = __ + 3.	Five belongs in the box because five and three make eight.
06 Fill 2 + 4 = 3 + __.	Both sides must be six, so the missing number is three.
07 Do both sides of the equals sign show the same number? 	Yes. Two plus three and four plus one each make five.

A 
B 

Can both parts match?

Yes. Three and three make six.

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