MATHS FIELD GUIDE · GRADE 1

Parts, wholes and adding

OPENING PROBLEM

What is the whole?

A 

B 

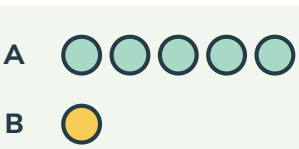
02 One whole, several splits
03 Rules and worked cases
04 Birds on two branches
05 Compare the models
06 Two routes to a total
07 Check your reasoning

ILLUSTRATED PROBLEM SHEET

One whole, several splits

One group can be split in different ways. Rejoining all the parts restores the whole.

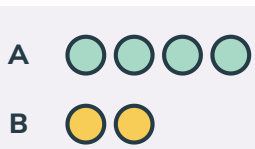
1



What is the whole?

Start at five and count one more. Six.

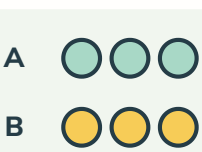
2



What changed from five and one?

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

3



Can both parts match?

Yes. Three and three make six.

4



Does an empty part change the total?

Six and zero still make six.

Seven split as 5 and 2
rejoin to check.

Seven split as 4 and 3
same whole, different parts.

CHAPTER PROBLEM

Does 2 + 5 have the same total as 5 + 2? Why?

Yes. Both use the same two parts and make seven.

MATHS REFERENCE · GRADE 1

Parts, wholes and adding

Addition finds the total when amounts join.

The + sign means add. The = sign says both sides have the same value.

Cases to recognise

Situation	What to do and why
Four sparrows and three crows	Two parts make seven birds: 4 + 3 = 7.
Eight birds, five on a fence	Three are elsewhere because 5 + 3 = 8.

Read the model

See a joining story

Three counters are here. Two more join them.

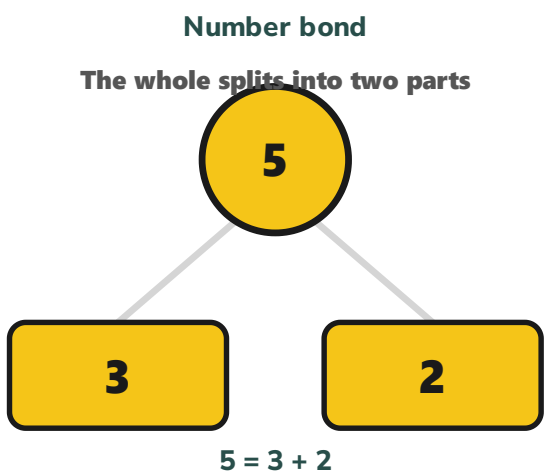
Count all the counters: five. Three and two make five.



Connect the parts

The parts are three and two. The whole is five.

A number bond shows how those amounts fit together.



addition Joining amounts to find a total.
plus The word for the + sign.
equal The same value.

A
B

Can you see five without counting from one?

See four together and one more. Five.

WORKED INVESTIGATION

Birds on two branches

There are five birds on one branch and three on another. Count on from five: six, seven, eight. Both branches together hold eight.

Look at this part	What it tells you
First branch	5 birds
Second branch	3 birds
Whole tree	8 birds

Work it through

One bird flies from the first branch to the second. The branches now have four and four. The tree still holds eight birds.

Catch the mistake

A child starts at five and says five, six, seven for the three extra birds. Five already counts the first group. The first new bird should be six.

Compare the cases

Write what happened

We write 3 + 2 = 5.

Read it: three plus two is equal to five. Each number has a job in the story.

Count on instead

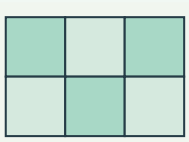
Start with four counters. Two more join.

Keep four in mind. Say five, six for the two new counters. Four and two make six.



Change one condition

Cover one branch. If there are eight birds in the tree and you see six, count up from six to eight. Two are hidden.



How many dots would fit if you put one in each cell?

Two rows of three give six. Counting three pairs gives the same six.

PARTS, WHOLES AND ADDING

Compare the models

Swap the parts

Two and four also make six.

Changing which group comes first does not change the total. The same counters are there.

Adding nothing

Five counters and zero extra counters still make five.

We write 5 + 0 = 5. Zero does not add another object.

Do not count the start twice

To add two to four, do not say four, five.

Say five, six. Each new counter gets one new number word.

Explain your reasoning

Four blocks and three more join. How many altogether?

Seven. Count all, or count on from four: five, six, seven.

Two more worked cases

Situation	Reasoning
All seven birds fly to one branch	Branch counts change to seven and zero. Total birds stay seven.
Count red birds and small birds together?	A small red bird fits both groups. Sort by one feature to avoid counting it twice.



Pair the rows. How many pairs and how many counters?

Three pairs. Each pair uses two counters, so there are six counters.

ILLUSTRATED PROBLEM SHEET

Two routes to a total

You can count on, make a pair, or first fill a ten.

1

A ○○○○○○

B ○○

Start at six. Where do two more land?

Seven, eight. The sum is eight.

2

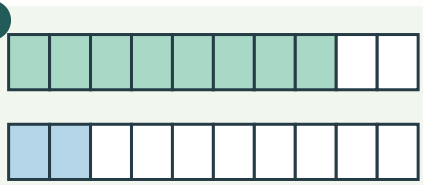
A ○○○○

B ○○○○

Which double do you see?

Four and four give eight without counting each dot again.

3



How many are needed to fill ten from eight?

Two spaces. From 8 + 5, use two, then add the other three to ten: 13.

4

A ○○○○○

B ○○○

If one counter moves from A to B, does the sum change?

Four plus four still gives eight.

7 + 6
double six, then one more: 13.

7 + 6
make ten with three, then add three: 13.

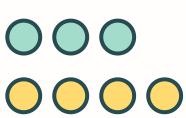
CHAPTER PROBLEM

What does 6 + 0 mean?

Six counters with no extra counters. The total stays six.

QUESTION BANK · FOLD OR COVER THE RIGHT COLUMN

Check your reasoning

Try the problem	Solution and reasoning
01 Six counters are under two cups. Four are visible under one. How many are hidden under the other?	Two. Four and two remake six.
02 Which is easier to make into a ten, 9 + 4 or 6 + 7?	Both work. Nine needs one, while six needs four. Each total is thirteen.
03 Nine birds sit on two branches. Four sit on the lower branch. How many are on the upper branch?	Five. Start at four and count five more birds to reach nine.
04 Nine birds sit on two rails. One rail has six. How many on the other?	Three, because six and three make nine.
05 One of six birds moves from the top to the bottom rail. How many birds now?	Still six. Only the two rail counts change.
06 One row has three and one has four. How many altogether? 	Seven. Joining the rows counts each counter once.



Which is easier to count, all the shapes or just the squares?

There are three squares and three circles. Use those groups to check the total of six.

BANANALEARN LEARNING LIBRARY

Where will your maths take you next?

GRADE 1 MATHS

Choose your next problem.

Explore more illustrated guides and practise a related topic.

Browse Grade 1 guides →

Keep exploring

GRADE 1 · TOPIC GUIDE

Say where something is

Open guide →

GRADE 1 · TOPIC GUIDE

Take away and find the difference

Open guide →

Visit bananalearn.com →