MATHS FIELD GUIDE · GRADE 2

Two meanings of division

OPENING PROBLEM

Share eight equally between two children. How many each?

A 

B 

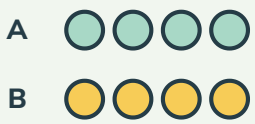
02 Same total, two division questions
03 Rules and worked cases
04 Share the strawberries
05 Decide what to do with the leftovers
06 Check your reasoning

ILLUSTRATED PROBLEM SHEET

Same total, two division questions

Sharing tells how many each gets. Grouping tells how many groups fit.

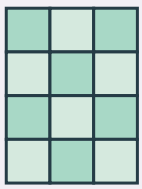
1



Share eight equally between two children. How many each?

Four. Each pair of turns gives both children one.

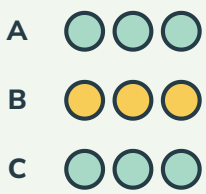
2



Twelve counters go into groups of three. How many groups?

Four complete rows.

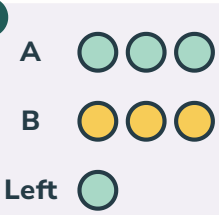
3



Nine are shared among three. How can you check?

Three groups of three rebuild nine.

4



Seven buttons go on cards, three to a card. What remains?

Two complete cards and one spare button.

Six shared among three
two per child.

Six put two per plate
three plates.

CHAPTER PROBLEM

Twelve counters are put into bags of four. Does the answer count bags or counters per bag?

Bags. There are three bags; each holds four counters.

MATHS REFERENCE · GRADE 2

Two meanings of division

Division splits an amount into equal groups. It can answer two different questions: “How many in each group?” or “How many groups?”

The total is known. We must read the question to find out which other quantity is known.

Four cases to recognise

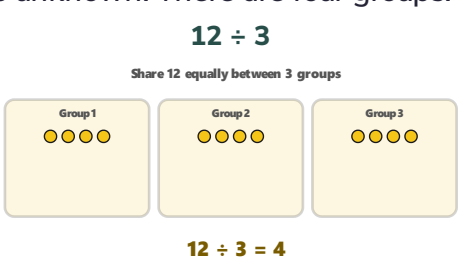
Situation	What to do and why
Share 18 counters between three people	Six rounds deal all counters. Each gets six.
Pack the same 18 in threes	Six groups fit. Here six counts bags, rather than counters per person.
Sixteen grapes in groups of five	Three complete groups use fifteen. One grape remains.
__ × 4 = 20	Find five equal groups of four. This checks 20 ÷ 4 = 5.

Read the model

Build the idea

Share twelve counters equally between three bowls. The number of bowls is known; the amount per bowl is unknown. Each bowl receives four.

Now put the same twelve counters into groups of three. The group size is known; the number of groups is unknown. There are four groups.



Division as equal sharing

Why it works

Both situations use 12 ÷ 3 = 4, but the answer counts different things. In the first, four counts counters per bowl. In the second, four counts bowls.

Multiplication can check the result because groups × amount per group rebuilds the total.

divide Split into equal groups.
share Find the amount in each known group.
group Collect a known amount to find how many groups fit.

A
B
C

Three bags, three marbles each. How many?

Three plus three plus three is nine.

WORKED INVESTIGATION

Share the strawberries

Deal twelve strawberries to three friends, one at a time. Four rounds use them all, so each friend gets four.

Look at this part	What it tells you
After round 1	3 shared
After round 2	6 shared
After round 4	12 shared

Work it through

Now pack the same twelve in boxes of four. Three full boxes answer a different question: how many boxes can you fill?

Catch the mistake

A share of 5, 4 and 3 uses all twelve but is unequal. Move one from the largest share to the smallest.

Compare the cases

Follow an example

Fifteen beads go equally into five bags. Give one to each bag three times. Each bag has three.

Check: five bags with three beads in each hold fifteen beads. Write 5 × 3 = 15.

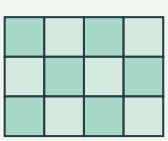
What changes? What stays true?

Equal division needs equal groups. If one bag has more, the sharing is not finished or is not fair.

Always name what the answer counts. “Four counters per bowl” is more informative than just “four”.

Change one condition

If a fourth friend joins before sharing, each receives three. Four groups of three still account for all twelve.



How does a rectangle show twelve?

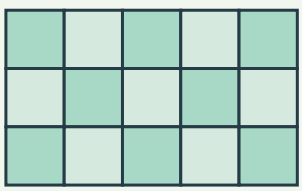
Three rows of four. You can also see four columns of three.

ILLUSTRATED PROBLEM SHEET

Decide what to do with the leftovers

Write total = group size × whole groups + remainder. The remainder is smaller than the group size.

1



Fifteen counters, five per box. How many full boxes?

Three, with zero spare.

2

$$17 = 3 \times 5 + 2$$

Seventeen counters, five per bag. What does the two count?

Two loose counters after three full bags.

3

$$29 = 4 \times 5 + 9$$
$$\downarrow$$
$$29 = 5 \times 5 + 4$$

Why is the second division answer finished?

Nine spare can fill another group. Four spare cannot fill a group of five.

4

23 people
↓
5 seats per car
↓
4 full cars + 3 people

How many cars are needed?

Five cars. Four is the number of full groups, but three passengers still need seats.

32 ÷ 6
5 remainder 2.

34 ÷ 6
5 remainder 4.

CHAPTER PROBLEM

Share 18 counters equally among 3 friends. Now pack 18 counters into bags of 3. What does each answer count?

Each friend gets 6 counters. The bags problem gives 6 bags. The same calculation answers two different questions.

QUESTION BANK · FOLD OR COVER THE RIGHT COLUMN

Check your reasoning

Try the problem	Solution and reasoning
01 Eight apples, two per plate. Is the answer two or four plates?	Four plates. The two tells how many go on each plate.
02 A 23 cm ribbon makes 5 cm bows. How many complete bows?	Four complete bows, with 3 cm left. This time the leftover cannot make another bow.
03 Pack 15 strawberries in bags of three. How many bags are full and how can you check?	Five bags. Count 3, 6, 9, 12, 15 or multiply five groups by three.
04 How many groups of four can you make from 24 buttons?	Six groups. Four times six checks the count.
05 Share 24 buttons among four people. What does six count now?	Six buttons per person, since each of four equal shares has six.

A
B
C



Can you count these as three twos?

One group is short. There are five, one fewer than six.

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