

Diving into Mastery – Diving

Adult Guidance with Question Prompts

Children practise different division strategies, including grouping and sharing. They make links between dividing by five and the five times table. They use the symbols \div and $=$ in calculations.

How many coins are there in total?

How many groups have you made?

How many are in each group?

How could we write it as a multiplication?

Is $15p = 3 \times 5p$ the same as $3 \times 5p = 15p$? Why?

What division calculation can you write?

What symbol will you use?

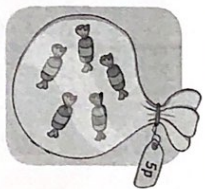
How can we share these marshmallows between the five bags?

Why do they need to be shared equally?

Can you write a division calculation?

What is the related multiplication fact from the five times table?

Divide by 5



Circle Alice's coins to make groups of 5.

The value of each group is 5 p.

There are 3 groups.

$$15p = \frac{3}{3} \times \frac{5}{5} p$$

$$15p \div \frac{3}{3} = \frac{5}{5} p$$

How many bags of 3 sweets can Alice buy?



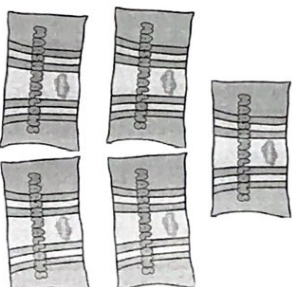
Aman buys 30

marshmallows. He shares them between 5 bags.

How many marshmallows

will be in each bag?

Show how you know.



$$30 \div \underline{5} = \underline{6} \quad 5 \times \underline{6} = \underline{30}$$

Diving into Mastery - Deeper

Adult Guidance with Question Prompts

Children consider the difference between sharing and grouping. They write division calculations using the symbols \div and $=$. They relate division to multiplication.

Is Aman sharing or grouping?

How do you know?

Could you represent what Aman has done in a drawing?

Can you use your five times table to help you work out how much each child will get?

Can you write a division calculation?

Is Jin sharing or grouping?

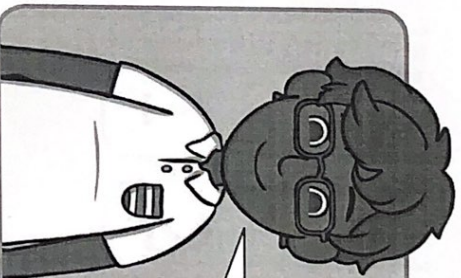
How do you know?

Can you use a number line to represent Jin's coins?

Can you write a division calculation?

These questions are different. The first is a sharing question and the second is a grouping question.

Divide by 5



I have 50p that I am going to share between 5 friends. How much will each person get?

each friend gets 10p.
 $50 \div 5 = 10$

I have 50p, made up from 5p coins. How many 5p coins do I have?

He has 10 5p coins



Are these questions the same or different?

Explain your ideas.

Write a calculation for each one.

Diving into Mastery - Deepest

Adult Guidance with Question Prompts

Children solve a problem by comparing division and multiplication statements. They use known facts about the five times table. Check children understand that the first number is a two-digit number with five ones. The missing number in the multiplication is a one-digit number. Encourage systematic working.

What does the = symbol mean?

What digit could we choose to go in the tens column first?

What digit would have to go in the multiplication calculation to make it equal to the division calculation?

Is there more than one possible answer?

What could we try next?

Why does it help to be systematic, following the pattern of the numbers?

Can we be sure we have found all the answers?

Could I write $55 \div 5 = 11$? Why not?

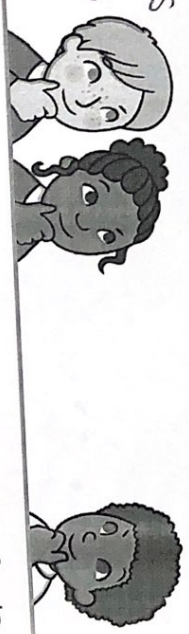
$15 \div 5 = 3$ $3 \times 5 = 15$
 $25 \div 5 = 5$ $5 \times 5 = 25$
 $35 \div 5 = 7$ $7 \times 5 = 35$
 $45 \div 5 = 9$ $9 \times 5 = 45$

Divide by 5



Use the digits 1 to 9 to find different ways to complete this statement. You can use each digit more than once.

$5 \div 5 =$



How many different ways can you find?
For each one, write the matching multiplication calculation.