Power Maths

White Rose Maths

White Rose Maths Edition

Year 3 Textbook 3A

Pearson

Series Editor: Tony Staneff

Year 3 Textbook 3A

Ash

Ash is curious.

He likes to help if you get stuck.

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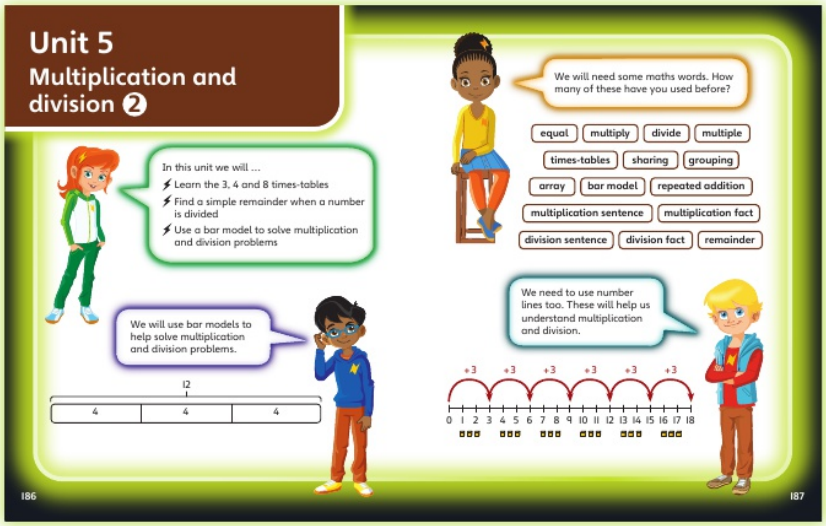
Lead author: Josh Lury
Consultants (first edition): Professor Liu Jian and Professor Zhang Dan
Written by Tony Staneff and Josh Lury

Pearson

Contents

How to use this book

These pages make sure we're ready for the unit ahead. Find out what we'll be learning and brush up on your skills!



Discover

Lessons start with **Discover**.

Here, we explore new maths problems.

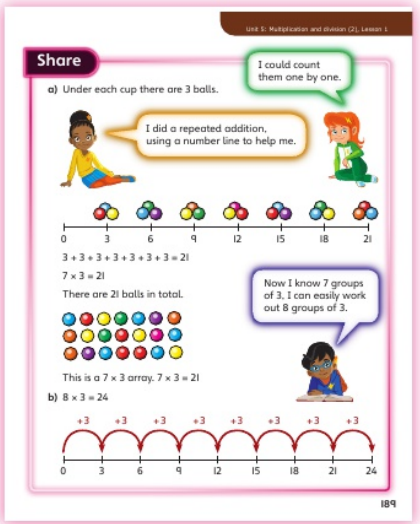
Can you work out how to find the answer?

Don't be afraid to make mistakes. Learn from them and try again!

Share

Next, we share our ideas with the class.

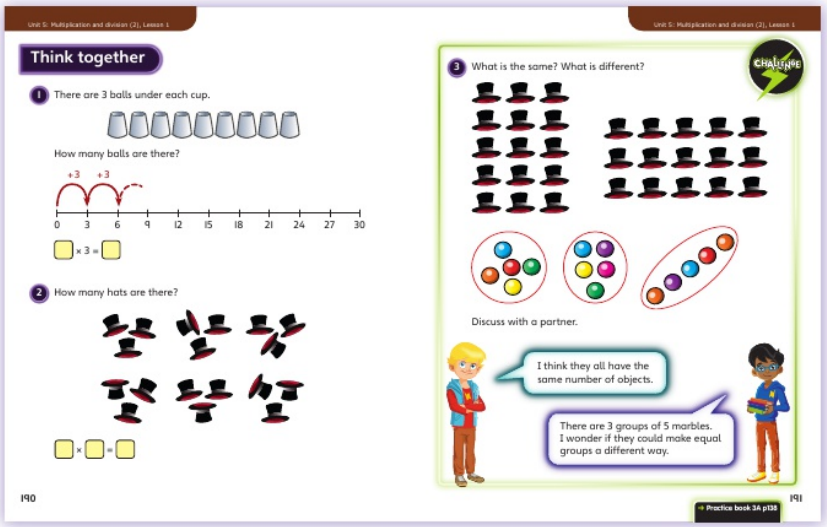
Did we all solve the problems the same way? What ideas can you try?



Think together

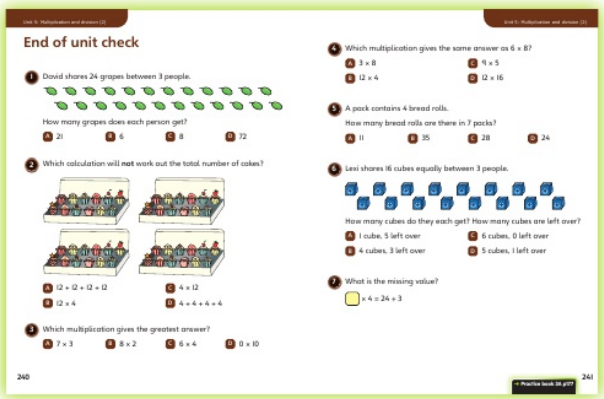
Then we have a go at some more problems together. Use what you have just learnt to help you.

We'll try a challenge too!



This tells you which page to go to in your **Practice Book**.

At the end of each unit there's an **End of unit check**. This is our chance to show how much we have learnt.

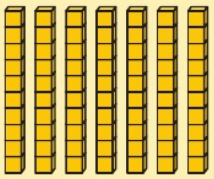


Unit 1
Place value within 1,000

In this unit we will ...

- Count in 100s
- Partition a number in 100s, 10s and 1s
- Find 100, 10 and 1 more or less
- Compare and order numbers up to 1,000
- Count in 50s

In Year 2 we used place value grids to organise our work. What number does this show?

T	O
	

We will need some maths words.
How many of these can you remember?

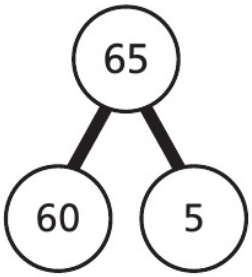
hundreds (100s) | tens (10s) | ones (1s)

place value | more | less

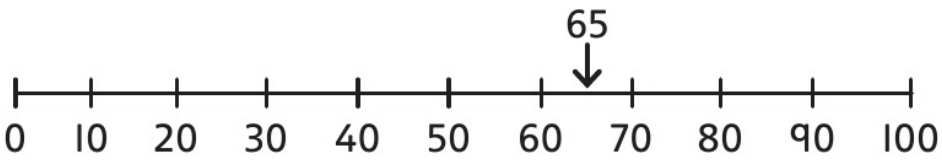
greater than (>) | less than (<) | equal to

order | compare | estimate

exchange | ascending | descending



We will also use part-whole models and number lines.



Represent and partition numbers to 100

Discover

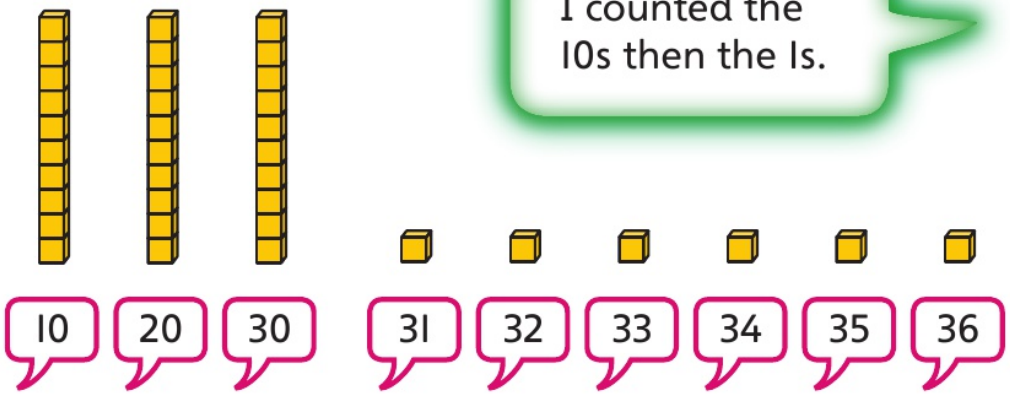
1 **a)** Draw or make Emma's number from base 10 equipment.
What number has Emma made?

b) What number has Andy made?

Share

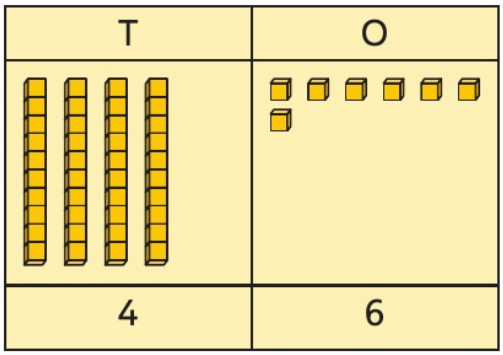
I counted the 10s then the 1s.

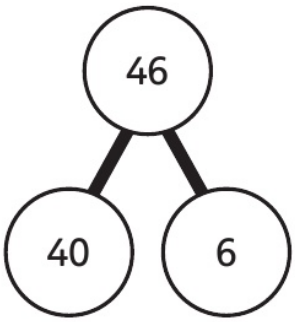
a)



Emma has made the number 36.

b)



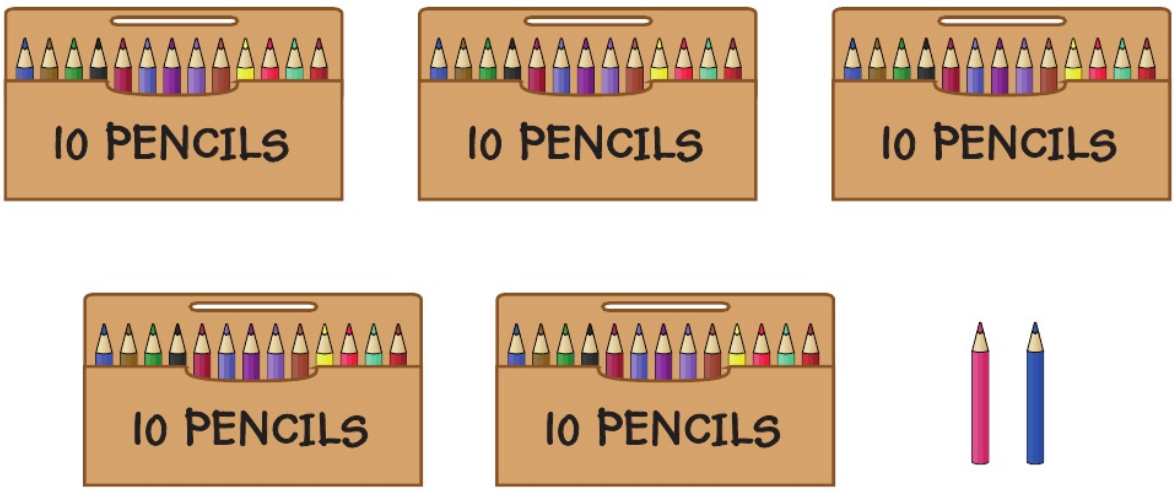


Andy has made the number 46.

I put the base 10 equipment into a place value grid. Then I drew a part-whole model.

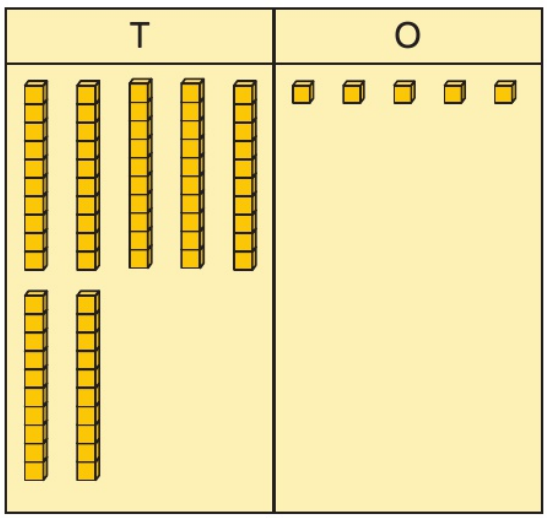
Think together

1 How many colour pencils are there?

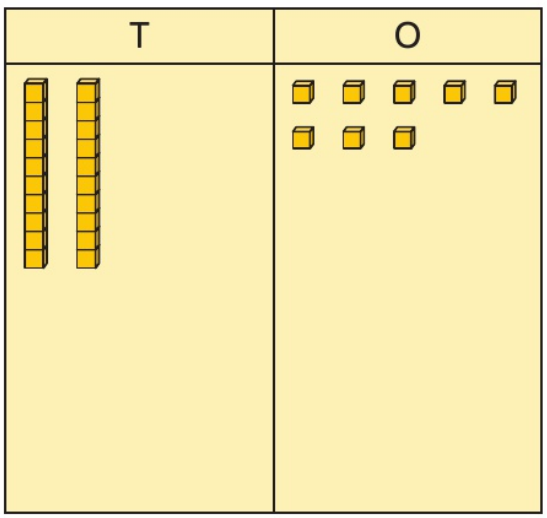


2 What numbers are shown here?

a)

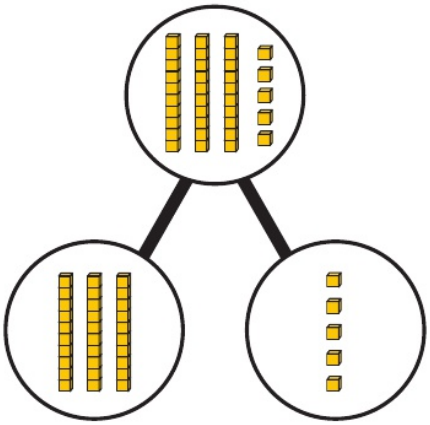


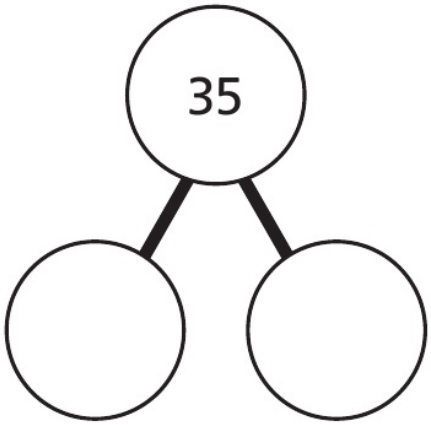
b)



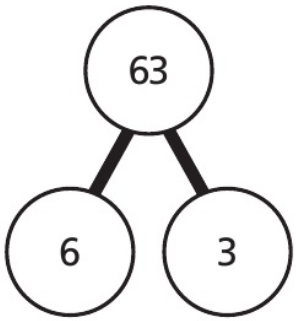
CHALLENGE

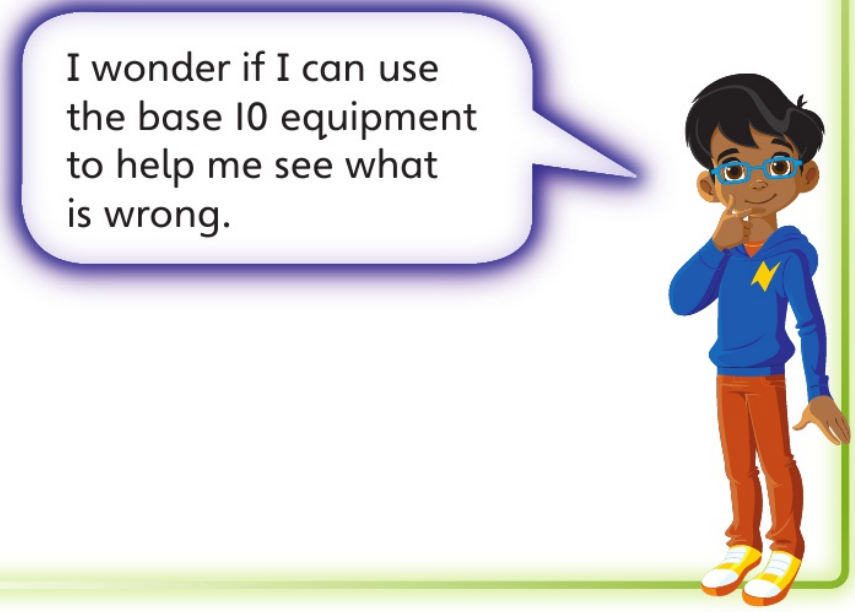
3 **a)** Complete the part-whole model. Use base 10 equipment to help you.





b) What is the mistake in this part-whole model?

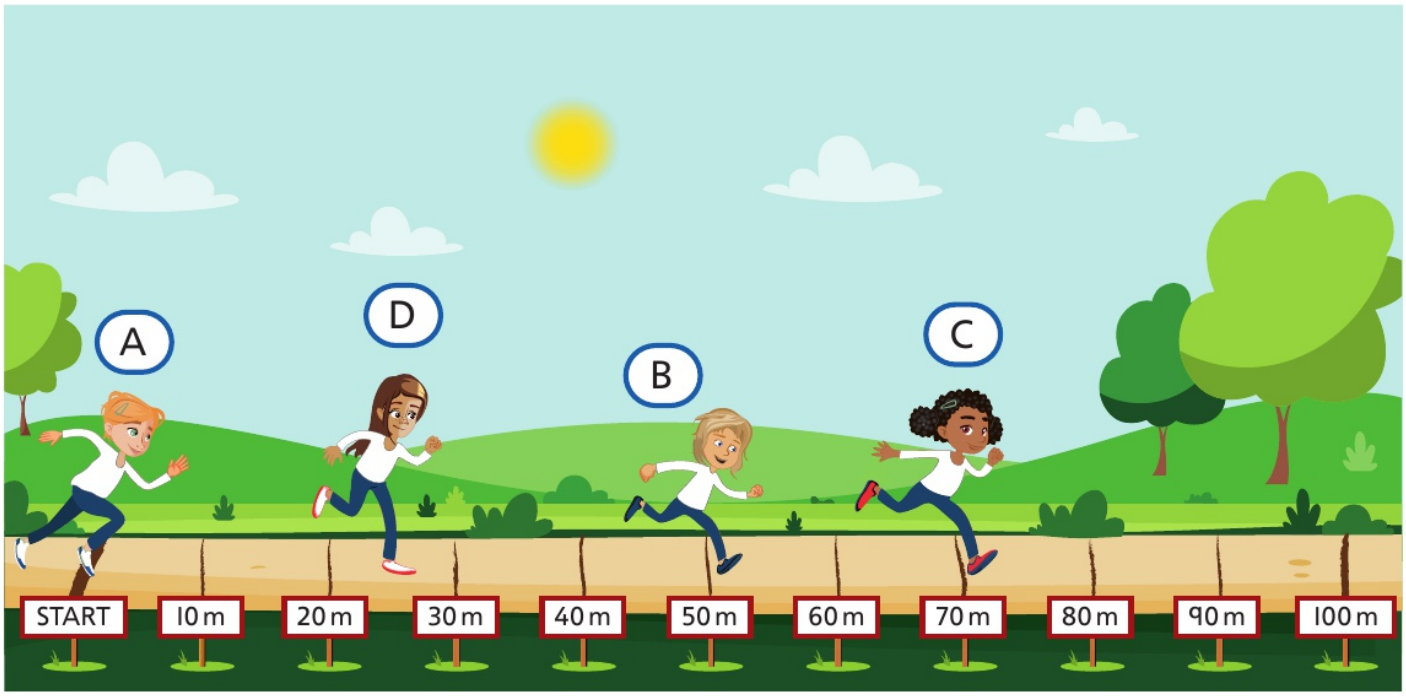




→ Practice book 3A p6

Number line to 100

Discover



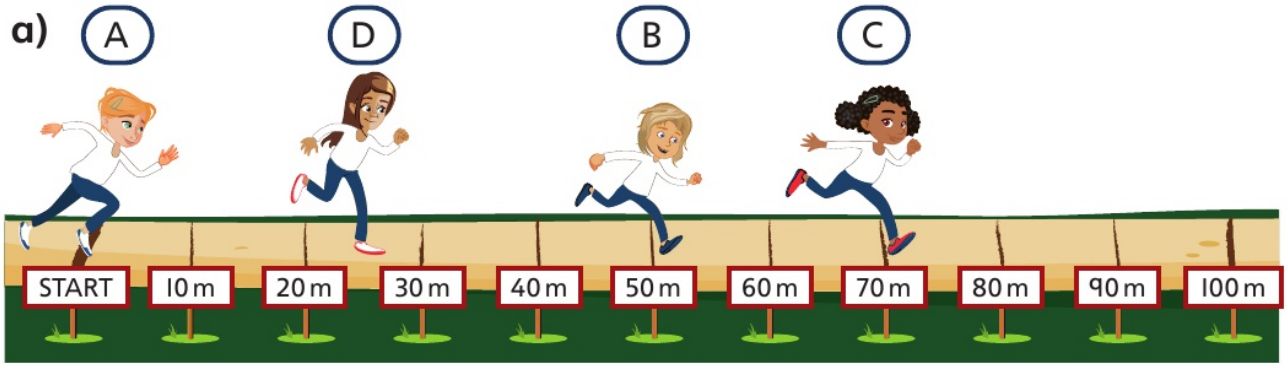
1 a) How far has runner B run?

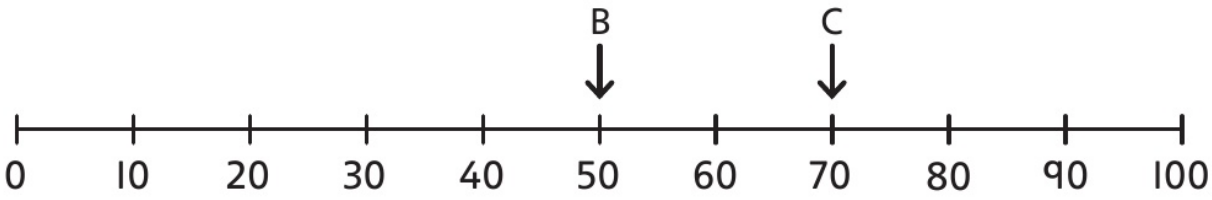
How far has runner C run?

b) How far has runner D run?

Share

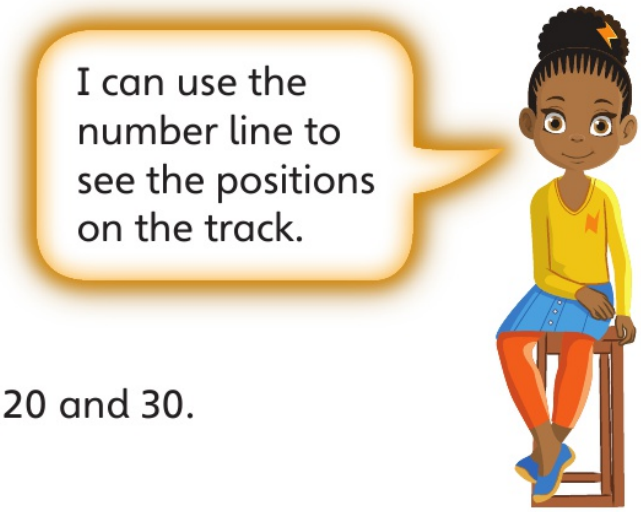
a)



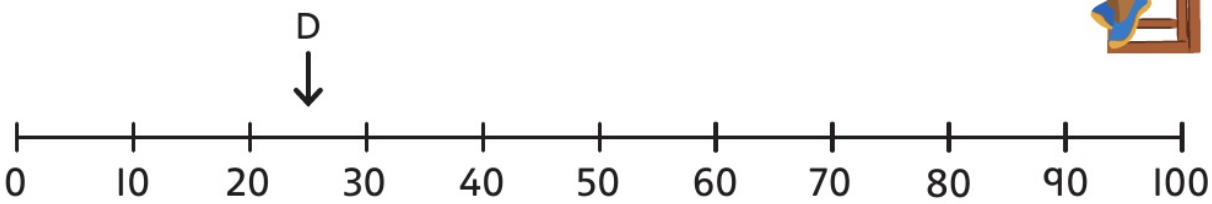


Runner B has run 50 metres.

Runner C has run 70 metres.



b) Runner D is half-way between 20 and 30.

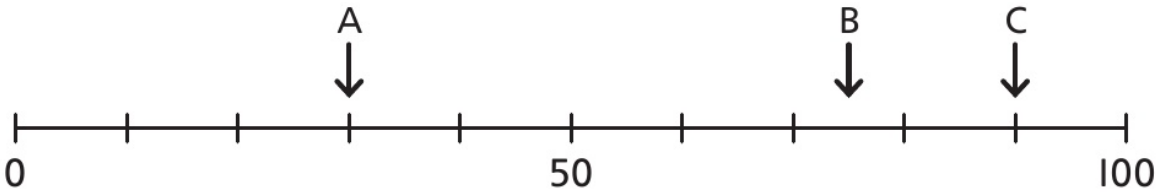


Half-way between 20 and 30 is 25.

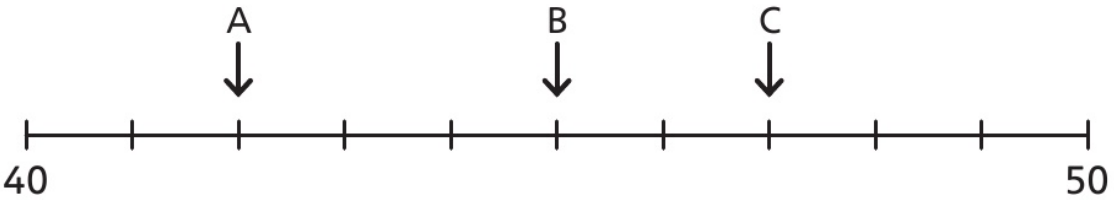
Runner D has run 25 metres.

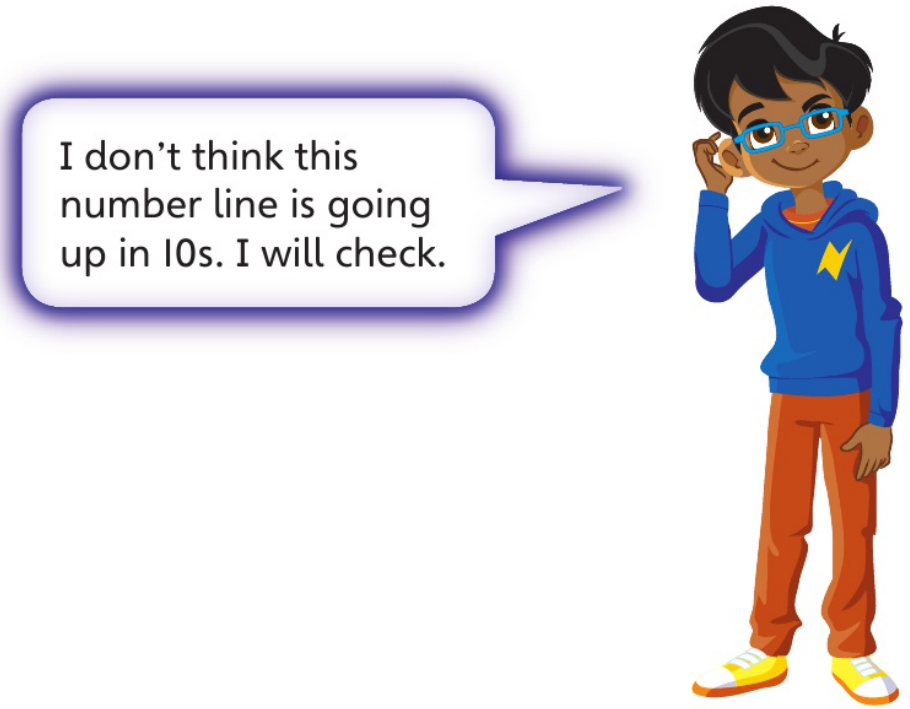
Think together

1 What numbers are the arrows pointing to?



2 What numbers are the arrows pointing to?

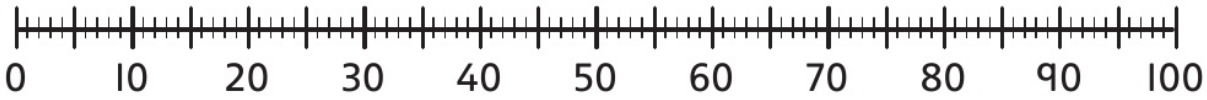




CHALLENGE

3

This number line is marked in 10s and 1s.



a) Point to the 10s markings.

Point to the 1s markings.

b) Point to the following numbers.

25	57	92

I know that 57 lies between 50 and 60.

→ Practice book 3A p9

100s

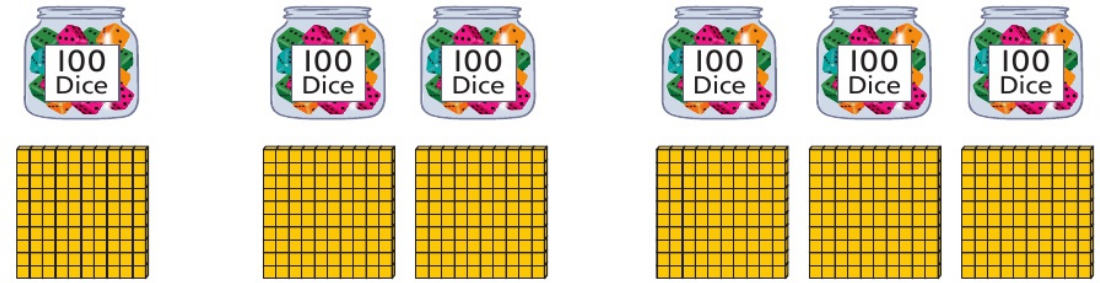
Discover

1 **a)** How many dice?

b) How many counters?

Share

a) We can count the dice.



100

200

300

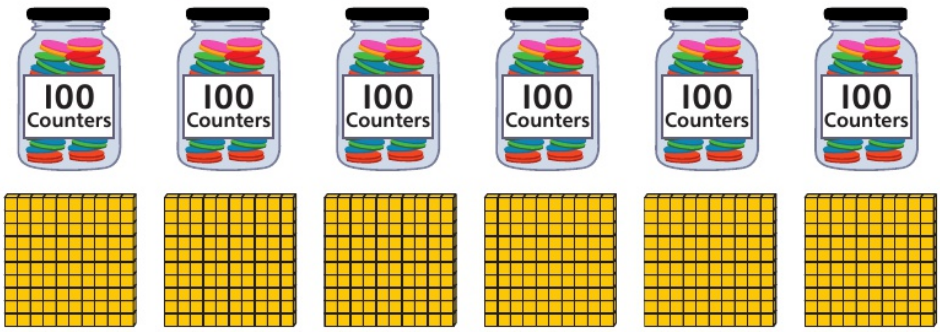
I counted up in 100s.

Each flat represents 100.

There are 100 dice in each jar.

There are 300 dice in total.

b) 100 200 300 400 500 600



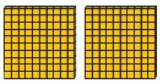
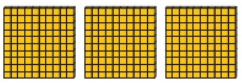
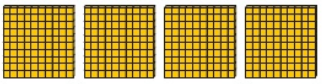
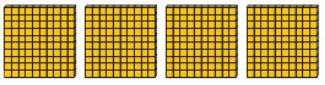
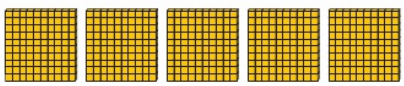
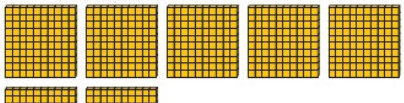
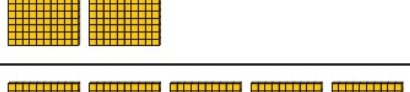
There are 6 jars of 100 counters.

There are 600 counters in total.

Think together

1 Each jar contains 100 counters.

How many counters are there in each row?

		0	zero
		100	one hundred
		200	two hundred
		300	three hundred
			
			
			
			
			

2 What are the missing numbers?

a)

0	100	200	300	☐	☐	600	700

b)

500	400	☐	200	☐	0

c) ☐, 600, ☐, 800, ☐

CHALLENGE

3 How many marbles are there?

Write the number in numerals and words.

There are ☐ marbles.

There are _____ marbles.

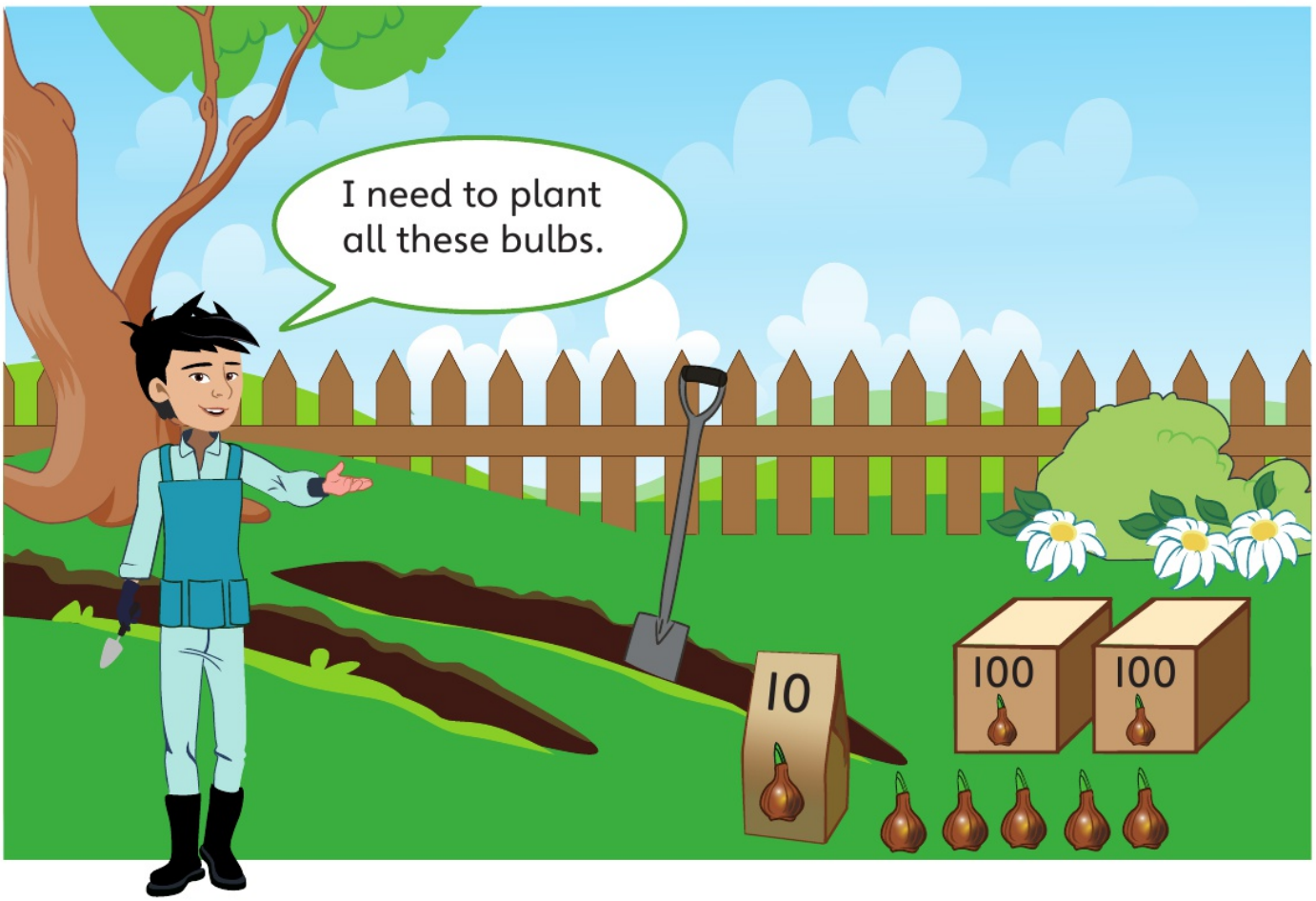
I think there is another name for this. I wonder what it is.

When I count in 100s, I know what comes after 9 **hundreds**. It must be 10 hundreds.

→ Practice book 3A p12

Represent numbers to 1,000

Discover



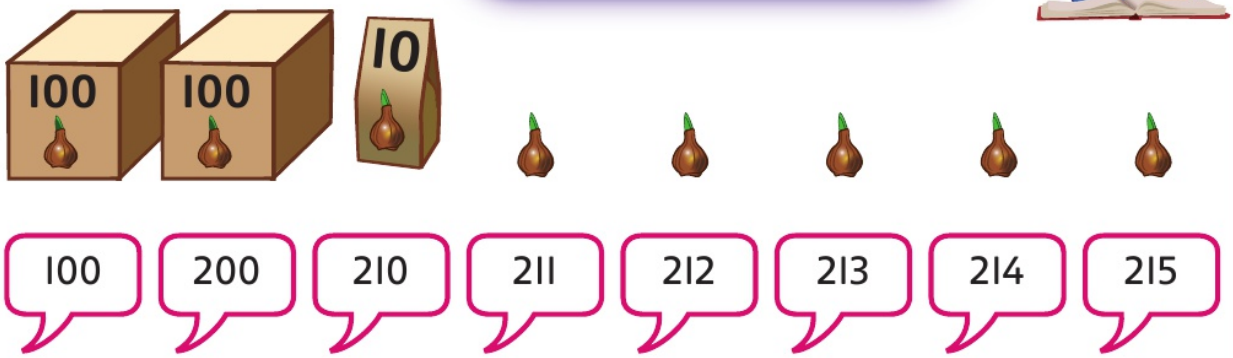
1 **a)** How many bulbs need to be planted?

b) Make this number with base 10 equipment.

How many 100s, 10s and 1s did you use?

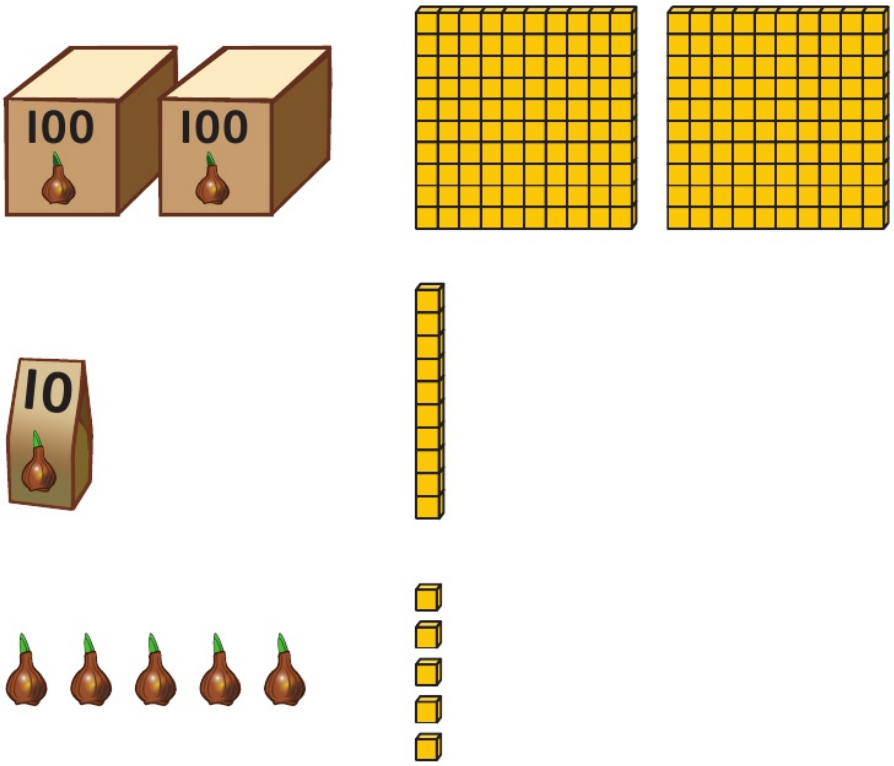
Share

a)



There are 215 bulbs to be planted.

b)



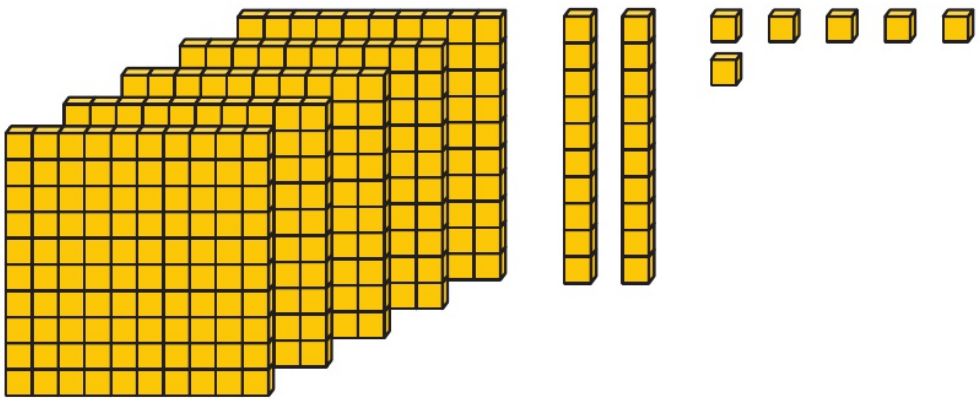
215 has 2 hundreds, 1 ten and 5 ones.

Think together

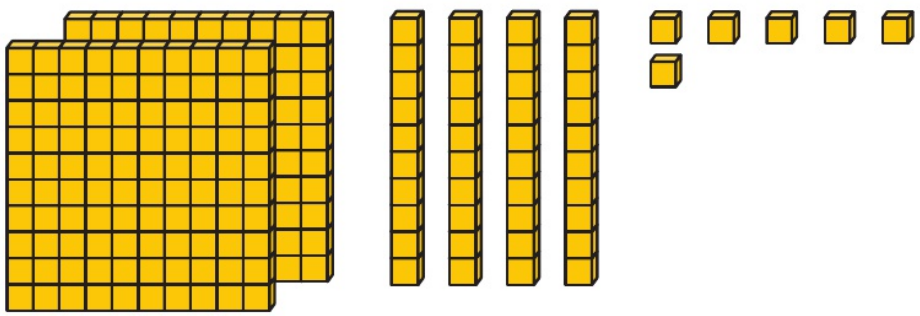
1 How many sunflower seeds are there?

2 What numbers are represented by this base 10 equipment?

a)



b)



CHALLENGE

3 Here are three digit cards:

3	4	7

Use the cards to make some 3-digit numbers.

a) Use base 10 equipment to make your numbers.

b) How many 100s does each number have?

c) How many 10s does each number have?

d) How many 1s does each number have?

I wonder how many numbers I can make with these cards.

→ Practice book 3A p15