

White Rose Maths Edition

Year 4 Textbook

4A



Pearson

Series Editor: Tony Staneff



Year 4 Textbook 4A



flexible



Flo

brave



Astrid

curious



Ash

determined



Dexter

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Number line to 1,000

Multiples of 1,000

4-digit numbers

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Partition 4-digit numbers flexibly

1, 10, 100, 1,000 more or less

1,000s, 100s, 10s and 1s

End of unit check

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Number line to 10,000

Between two multiples

Estimate on a number line to 10,000

Compare and order numbers to 10,000

Round to the nearest 1,000

Round to the nearest 100

Round to the nearest 10

Round to the nearest 1,000, 100 or 10

End of unit check

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Add and subtract 1s, 10s, 100s, 1,000s

Add two 4-digit numbers

Add two 4-digit numbers – one exchange

Add with more than one exchange

Subtract two 4-digit numbers

Subtract two 4-digit numbers – one exchange

Subtract two 4-digit numbers – more than one exchange

6

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which page
you need.



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Let's begin!



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.



Unit 1
Place value –
4-digit numbers 1

In this unit we will ...

- Count in 1,000s
- Represent 4-digit numbers
- Partition 4-digit numbers
- Use number lines
- Say a number 1, 10, 100 or 1,000 more or less than any 4-digit number

What number is represented here?
Use it to find 100 more.

H	T	O
●●●	●●●●	●●●

We will need some maths words. Which ones have you seen before? What do they mean?

tens hundreds thousands
partition place value
number line multiples digit

We need to represent numbers in different ways.

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!

Unit 1: Place value – 4-digit numbers (2), Lesson 3

Estimate on a number line to 10,000

Discover

1 a) Complete the sentence:
Sofia has run between m and m.
b) Estimate the distance she has run.

52



Share

Next, we share our ideas with the class.

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

Share

a) When squares are used to make a rectilinear shape, they should touch at the side, not just the corner.

To show the shapes with an area of 4 paving slabs, we can use 4 squares. They can be arranged in the following different ways.

b)

I found 3 shapes with an area of 5. I wonder if there are more?

161

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!

Think together

1

Th	H	T	O
●●●●	●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●●●

a) Make 3,512 on your own place value grid.
Add a counter to show 100 more.
b) Now make 3,512 again.
c) What do you notice?

2

Th	H	T	O
●●●●	●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●●●

a) What is 1,000 less than 7,892?
b) What is 100 less than 7,892?
c) What is 10 less than 7,892?
d) What is 1 less than 7,892?
e) What is 1,000 more than 7,892?
f) What is 100 more than 7,892?
g) What is 10 more than 7,892?
h) What is 1 more than 7,892?

I think there is something I will have to do when I find 10 more than 7,892.

3 Here is a function machine.

a) What number comes out when 5,675 is put in?
b) What number comes out when 6,993 is put in?
c) If 7,650 comes out, what number was put in?

I will work out the answer at each step so I do not make mistakes.

I wonder if I would get the same answer if the functions were in a different order.

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Practice Book 48 p.16



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.

End of unit check

1 Which column method completes this addition?

Th	H	T	O
●●●●	●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●●●

2 Which subtraction requires only one exchange?

Th	H	T	O
●●●●	●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●●●

3 Which calculation gives the same answer as $5,000 - 917$?

4 Which calculation does not check $6,025 - 1,836 = 4,191$?

5 Beja scored 1,250 points and Ebo scored 425 points. Which bar model shows the difference between Beja's score and Ebo's score?

6 Sofia paid £2,500 for a holiday. Amel paid £1,200 less than Sofia for a holiday. How much did they pay altogether?

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145

Practice Book 48 p.16

Unit 1

Place value – 4-digit numbers 1



In this unit we will ...

- ⚡ Count in 1,000s
- ⚡ Represent 4-digit numbers
- ⚡ Partition 4-digit numbers
- ⚡ Use number lines
- ⚡ Say a number 1, 10, 100 or 1,000 more or less than any 4-digit number

What number is represented here?
Use it to find 100 more.

H	T	O
100 100 100	10 10 10 10 10	1 1





We will need some maths words.
Which ones have you seen before?
What do they mean?

tens

hundreds

thousands

partition

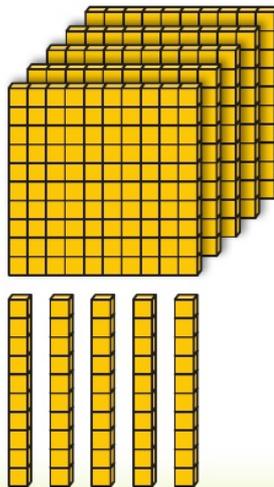
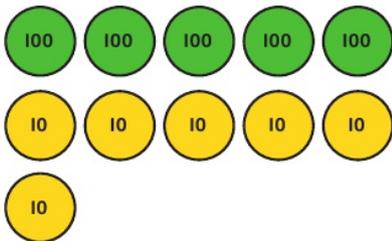
place value

number line

multiples

digit

We need to represent
numbers in different ways.

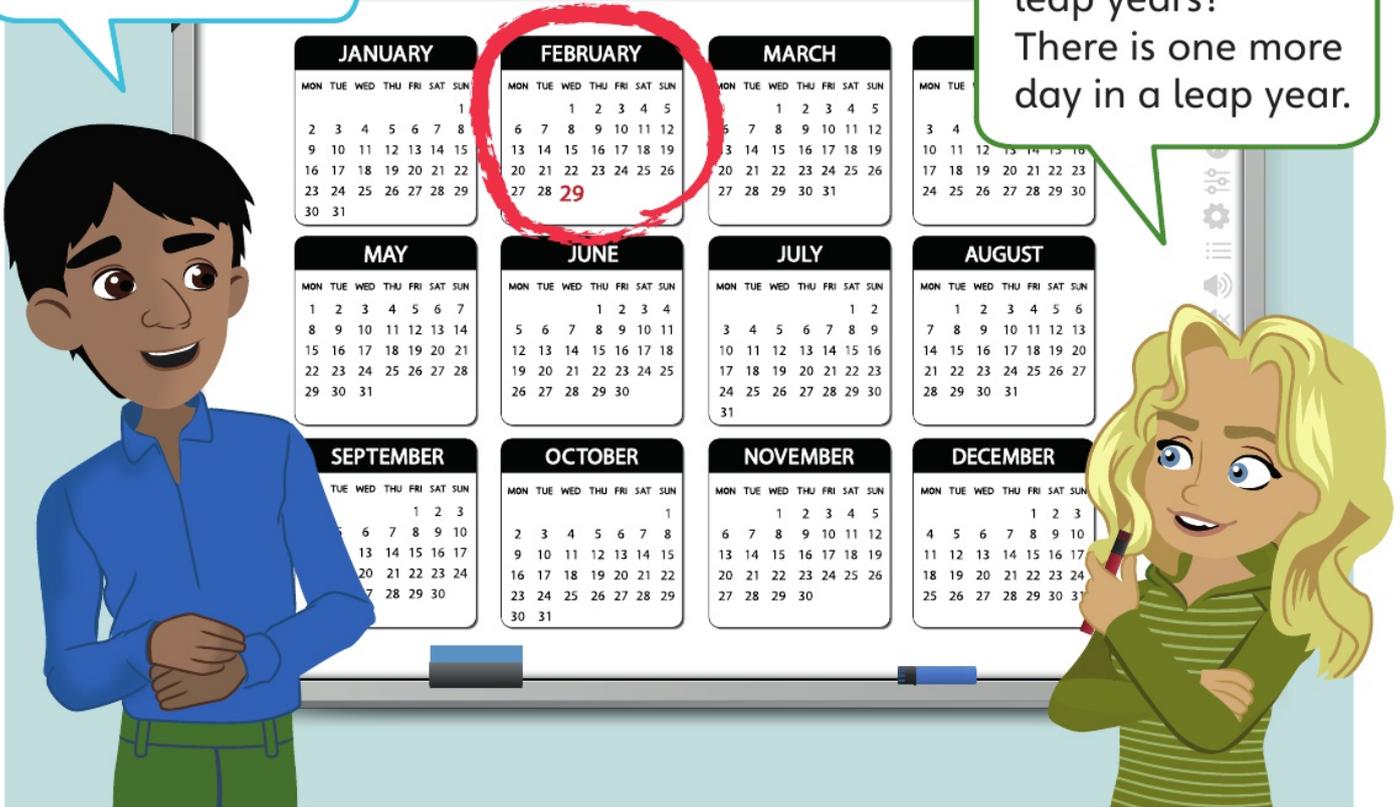


Represent and partition numbers to 1,000

Discover

There are 365 days in one year.

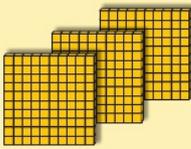
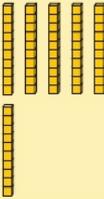
But what about leap years? There is one more day in a leap year.



- 1 a) Make 365 from base 10 equipment.
- b) Show how 366 can be partitioned.

Share

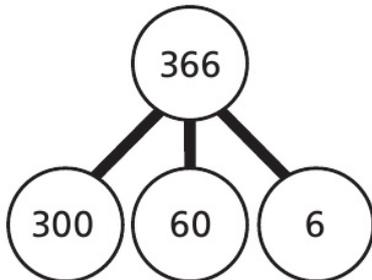
a)

H	T	O
		
3	6	5

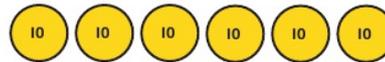
The number has 3 digits: some 100s, some 10s and some 1s.



- b) The number 366 has:
3 hundreds, 6 tens and 6 ones.



$$3 \times 100$$



$$6 \times 10$$



$$6 \times 1$$

$$300 + 60 + 6 = 366$$

I wrote an addition to show the partitions.



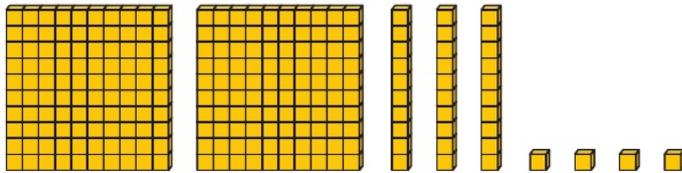
Think together

I will use a place value grid to help me.

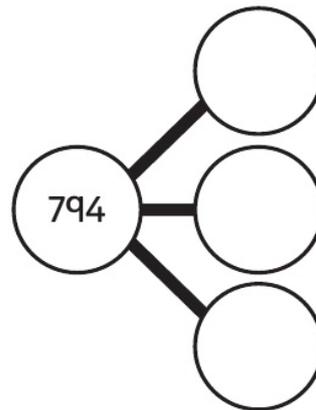
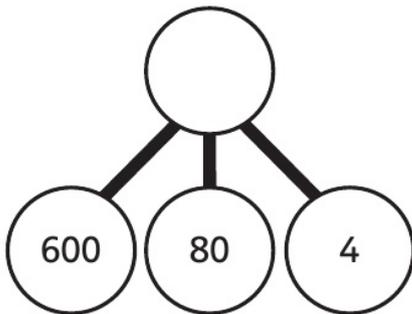


1 Make 234 using base 10 equipment.

What is the value of each digit?



2 a) Complete the part-whole models.



b) Complete these additions.

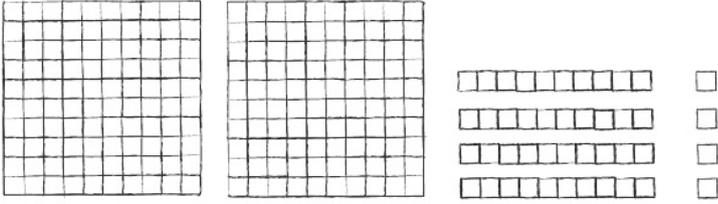
$$\square = 600 + 80 + 4$$

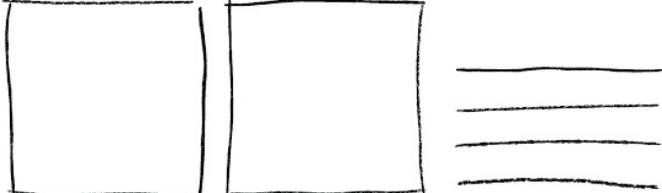
$$794 = \square + \square + \square$$

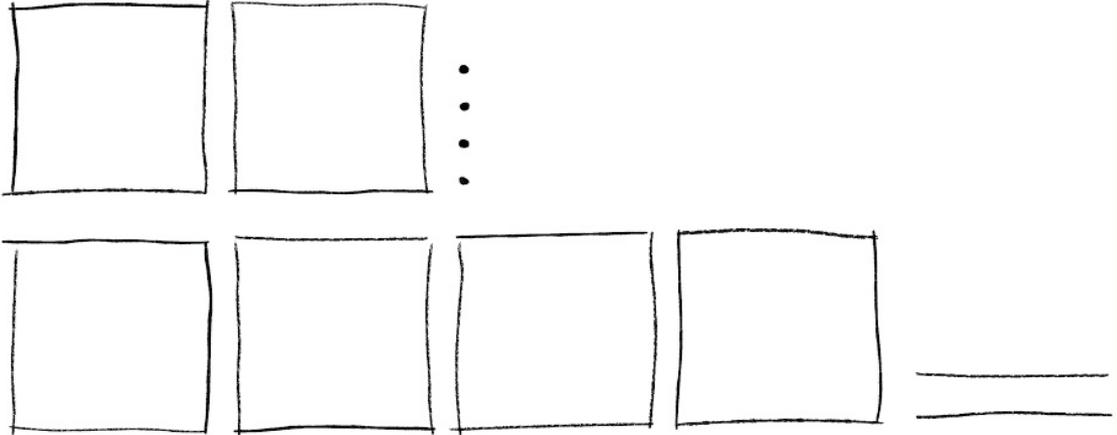
c) What do you notice about your part-wholes and additions?

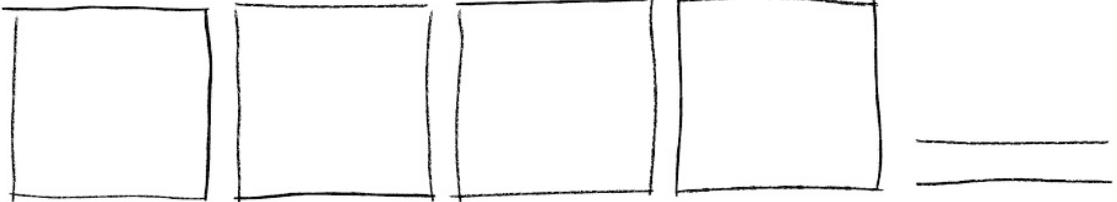


3 a) What number does each drawing represent?

A 

B 

C 

D 

b) Which of these numbers has 0 tens?

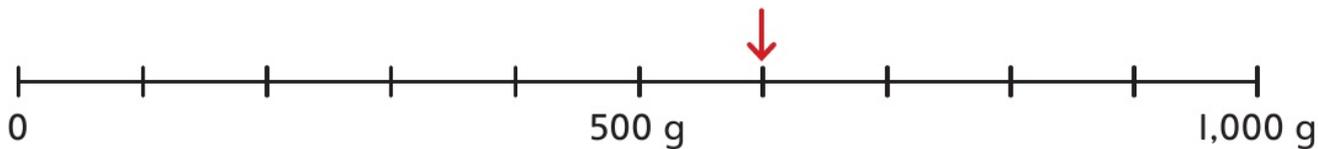
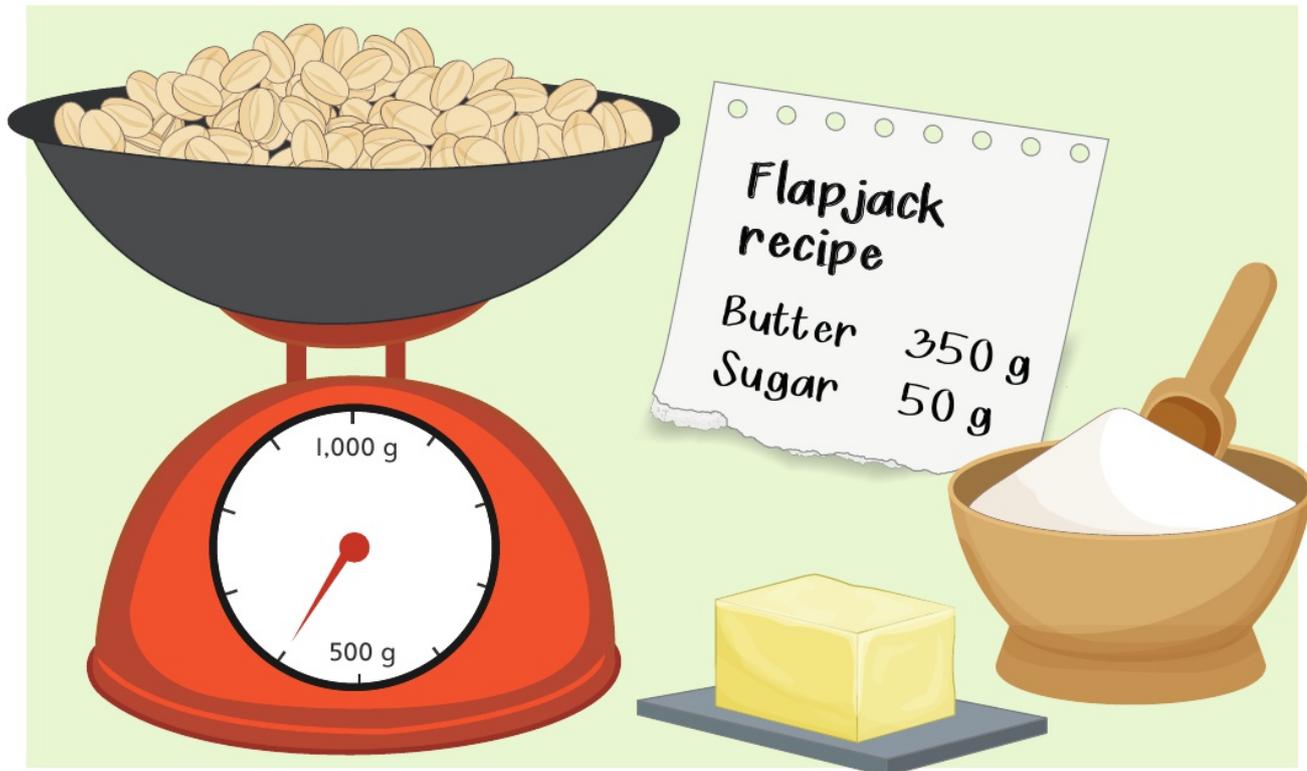


I wonder if there's an easy way to see which of these has no 10s.

c) Draw base 10 equipment to represent these numbers:
305, 350, 353, 503.

Number line to 1,000

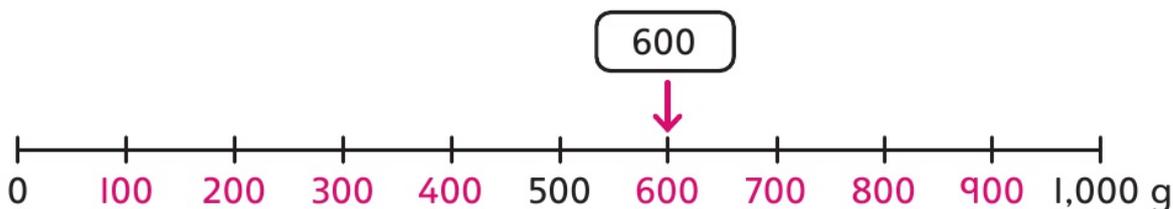
Discover



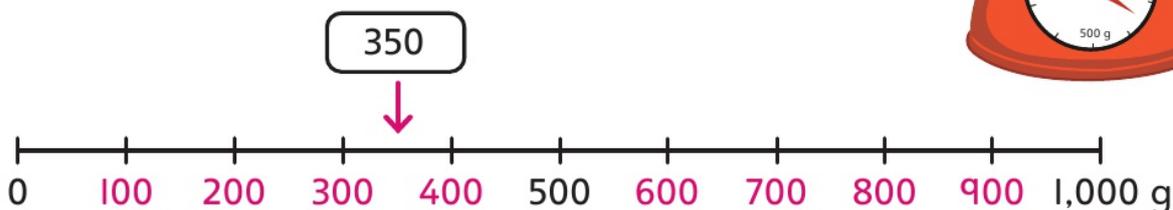
- 1** a) How many grams of oats are on the scales?
b) Where would the arrows for butter and sugar be on the scales?

Share

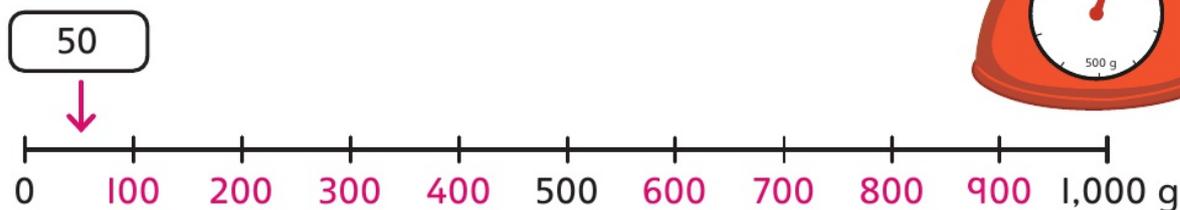
- a) There are 600 g of oats on the scales.
The number line has intervals for each 100 g.



- b) The arrow would point to 350 g of butter on the scales. 350 is half-way between 300 and 400.



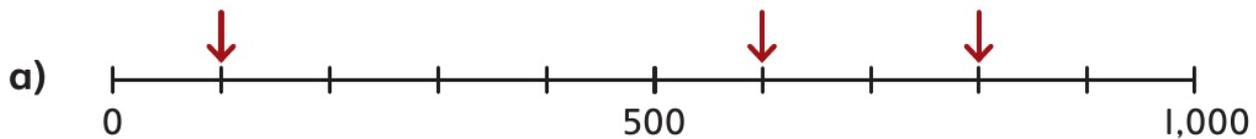
The arrow would point to 50 g of sugar on the scales. 50 is half-way between 0 and 100.



Think together

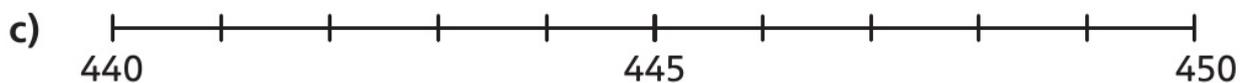
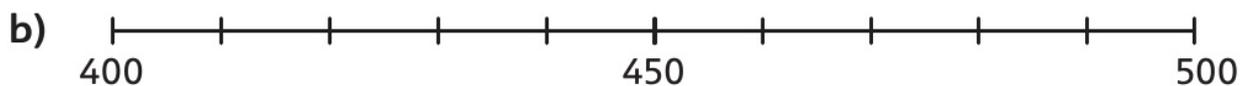
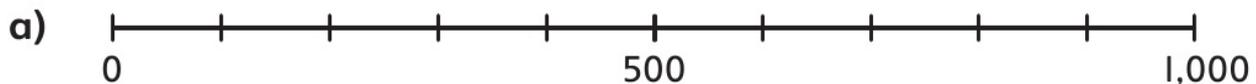
1 Count forwards and backwards on each number line.

What numbers do the arrows point to?



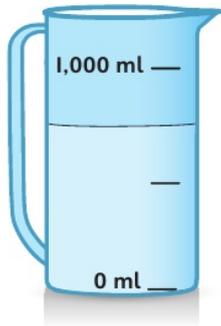
2 Count forwards and backwards on each number line.

Place 449 on each number line.

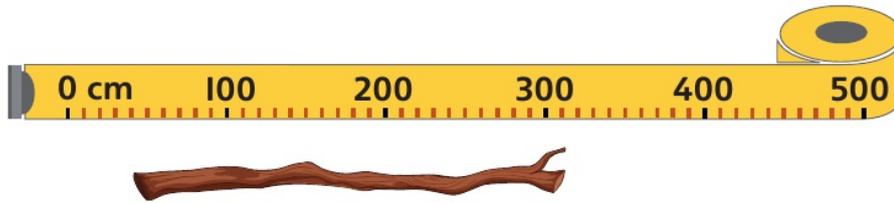


CHALLENGE

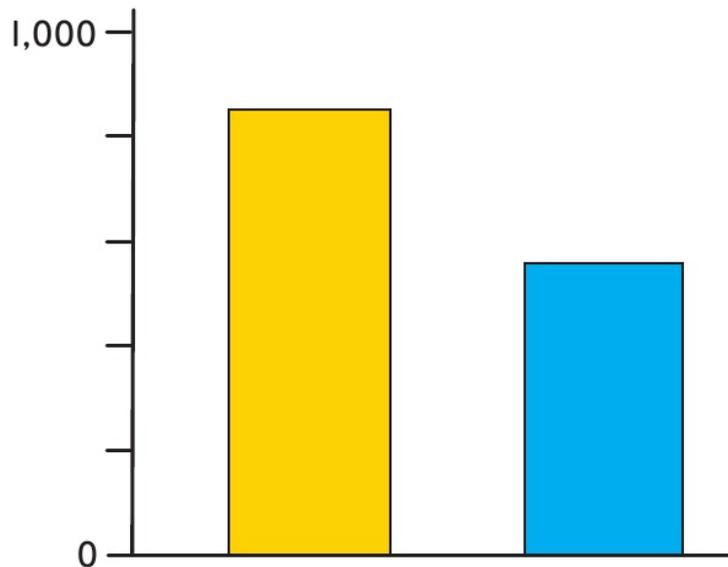
- 3 a) Estimate how much water is in the jug.



- b) Estimate the length of the stick.



- c) Estimate the heights of the bars.



Multiples of 1,000

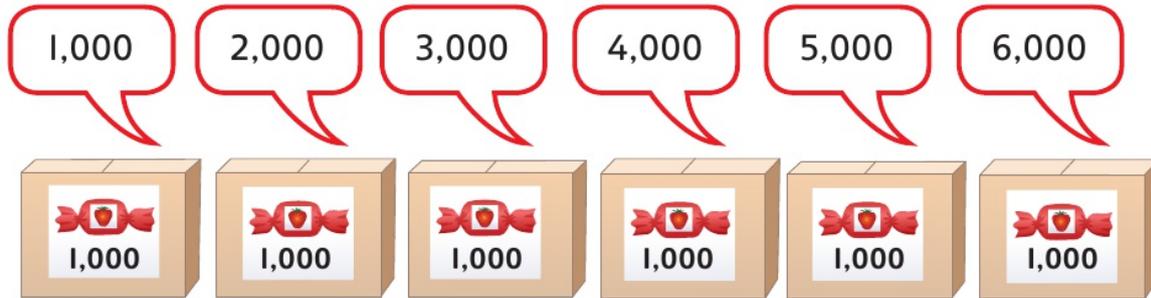
Discover



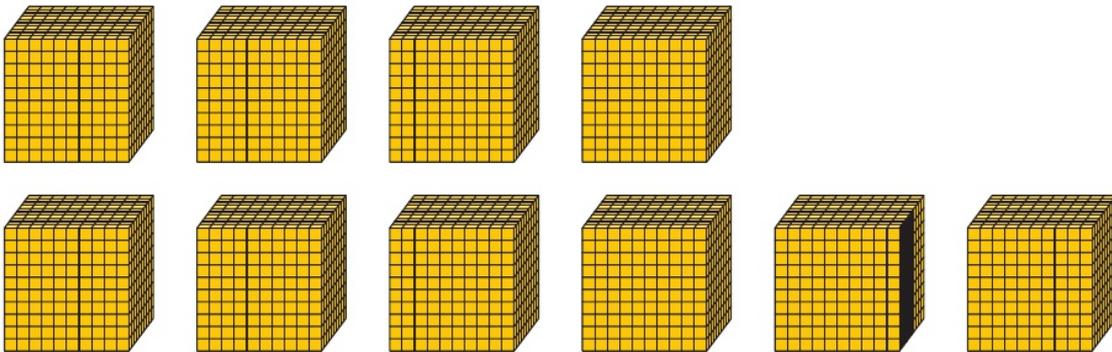
- 1** a) Count the lemon sweets on the forklift pallet.
Count the strawberry sweets on the forklift pallet.
- b) How many sweets are there altogether?

Share

a) Count the multiples of 1,000.



b)



$$\begin{array}{r}
 4 \quad + \quad 6 \quad = \quad 10 \\
 4 \text{ thousand} \quad + \quad 6 \text{ thousand} \quad = \quad 10 \text{ thousand} \\
 4,000 \quad + \quad 6,000 \quad = \quad 10,000
 \end{array}$$

Think together

- 1 a) Count the strawberry sweets.

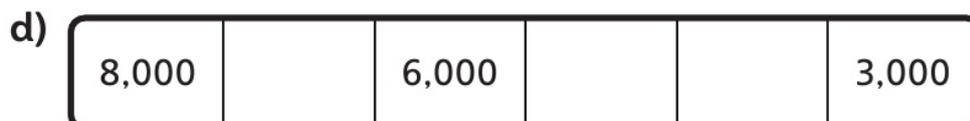
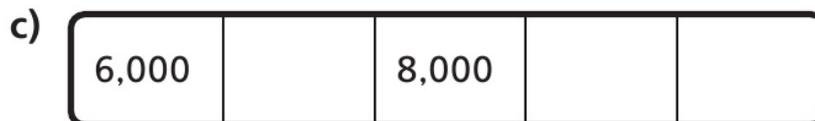


- b) Count the lemon sweets.



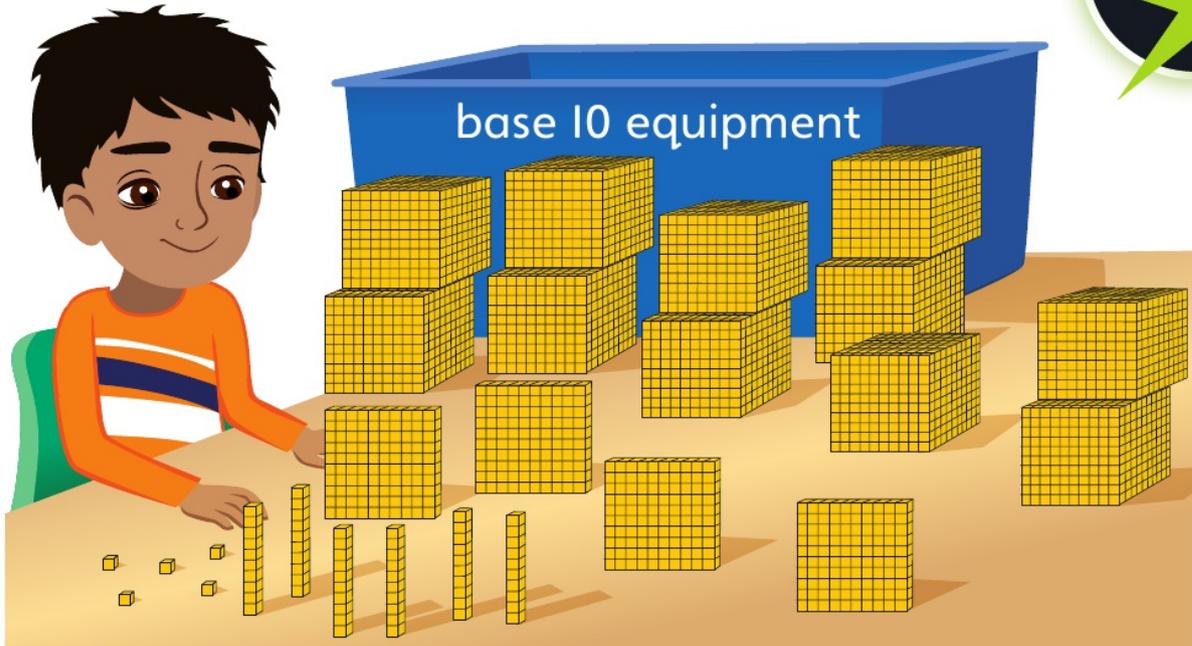
- c) How many sweets altogether?

- 2 Complete the number tracks.



3

CHALLENGE

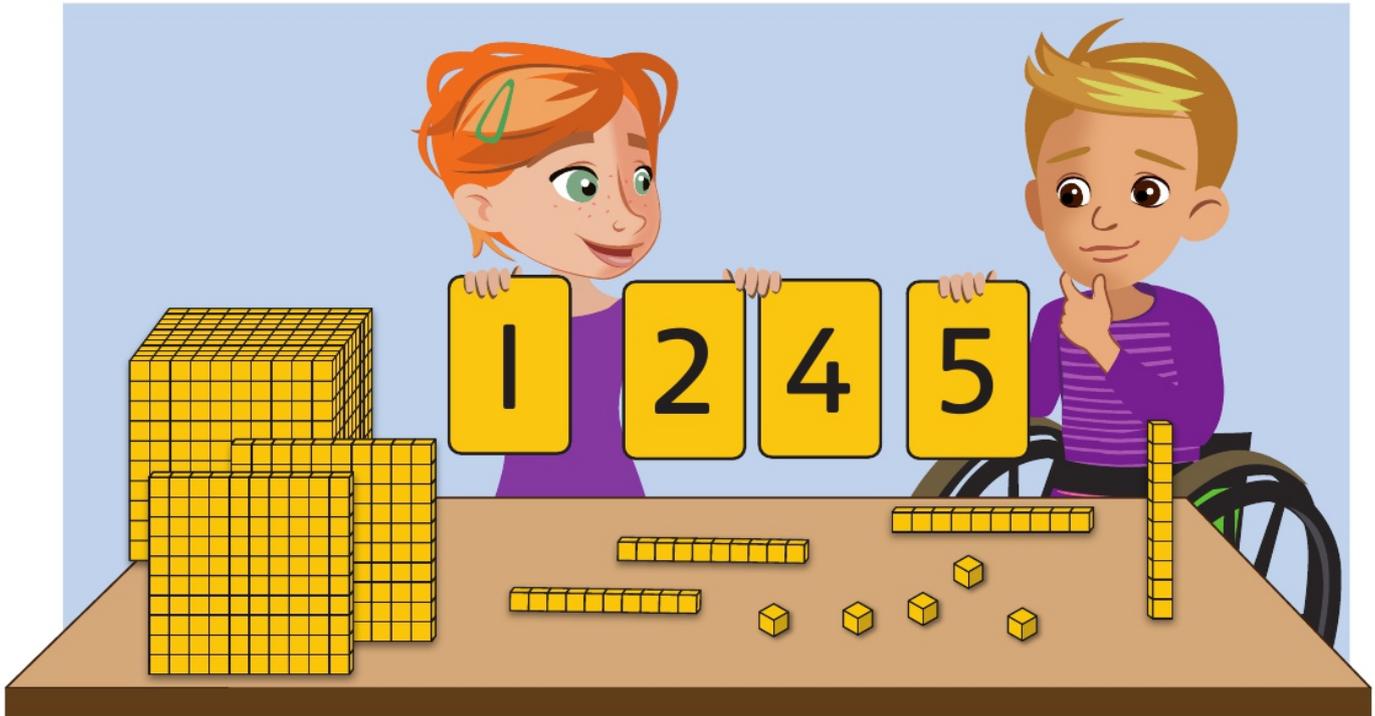


Why does a big cube, or block, of base 10 equipment mean 1 thousand?

- How could you make 1,000 using 100s?
- How could you make 1,000 using 10s?
- How could you make 1,000 using 1s?
- How could you make 2,000 using 100s?
- How could you make 2,000 using 10s?
- How could you make 2,000 using 1s?

4-digit numbers

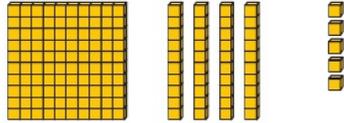
Discover



- 1** a) Choose three of the cards.
Make a 3-digit number.
Make your number from base 10 equipment.
- b) Place the remaining card at the front of the cards chosen to make a 4-digit number.
Make your number from base 10 equipment.

Share

a)

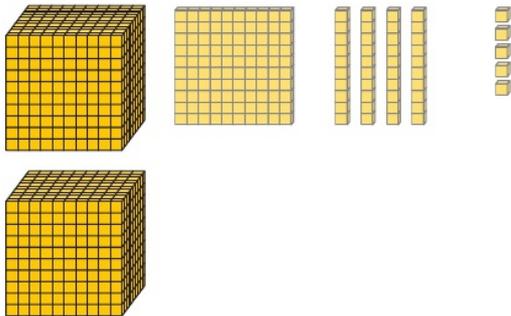


H	T	O
1	4	5

I could have made lots of different numbers.



b)



Th	H	T	O
2	1	4	5

I showed the numbers on a place value grid.

