White Rose Maths

Year 3

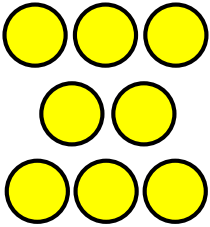## Place Value

True or False?

If I count in 100s from zero, all of the numbers will be even.

Convince me.

Always, Sometimes, Never?

- When counting in hundreds, the ones column changes.

- When counting in hundreds, the hundreds column changes.

- To count in hundreds we use **3**-digit numbers.

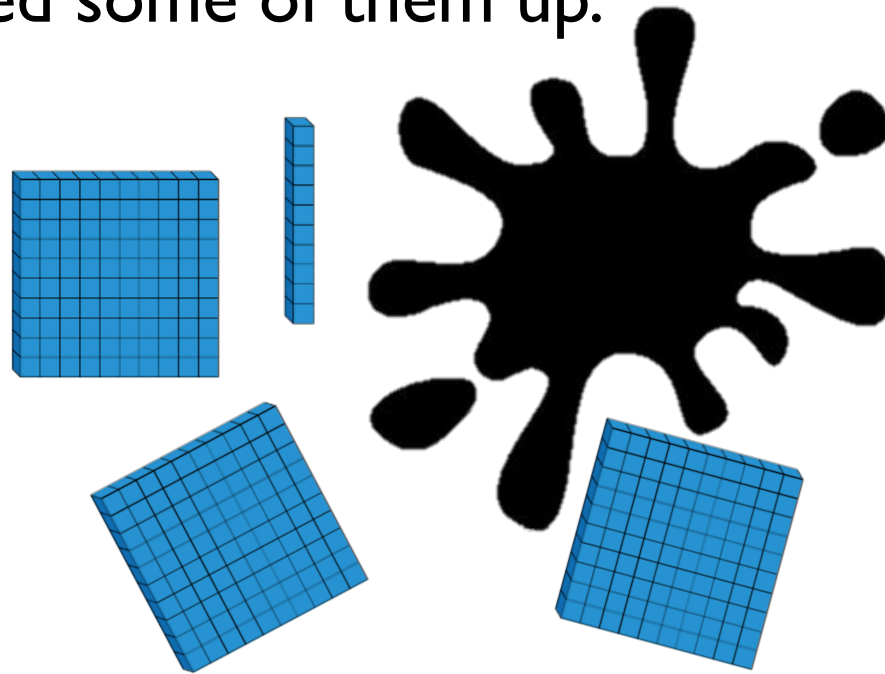Whitney thinks the place value grid is showing the number eight.

Hundreds	Tens	Ones
⬤⬤⬤ ⬤⬤ ⬤⬤⬤		

Do you agree? Explain why.

Using all of the counters, what is the smallest number you can make?

What other numbers could you make?

Teddy has used Base 10 to represent the number 420.
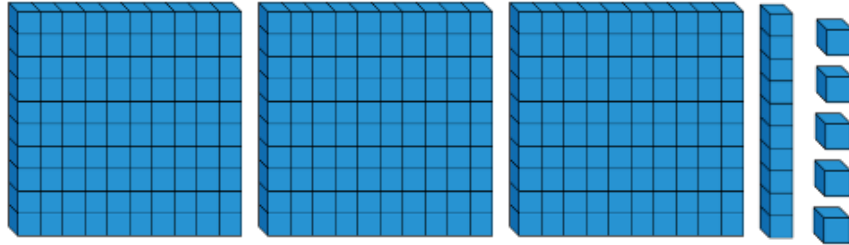He has covered some of them up.

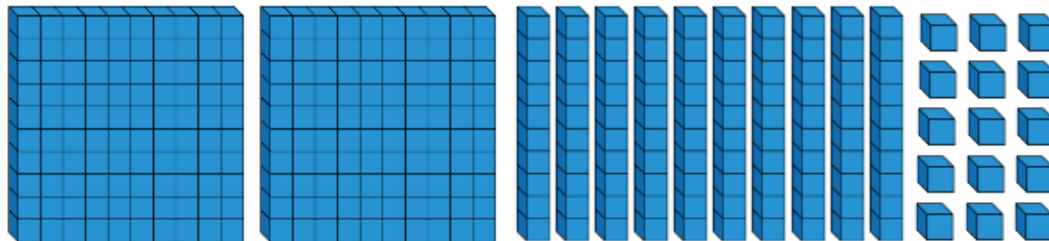Work out the amount he has covered up.

How many different ways can you make the missing amount using Base 10?

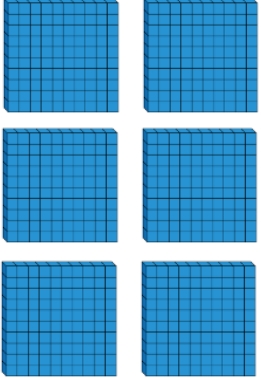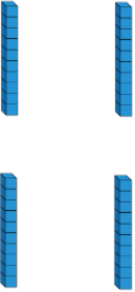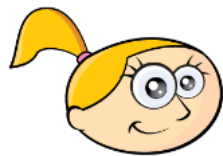Which child has made the number 315?
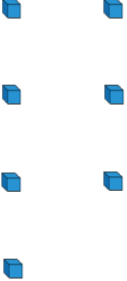
Dora

Mo

Explain how you know.

Hundreds	Tens	Ones

The place value grid shows the number 467

Is Eva correct? Explain your reasoning.

What do you notice about the number shown?

5 **0** **3**

Using each digit card, which numbers can you make?

Use the place value grid to help.

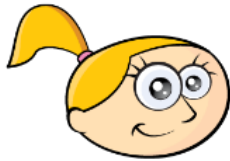| Hundreds	Tens	Ones

Compare your answers with a partner.

Using place value counters, how many different ways can you make four hundred and fifty?

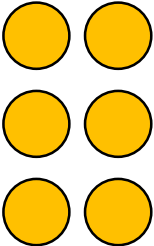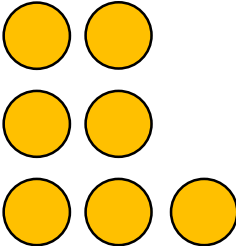Show your solutions as a calculations.

Eva

The number in the place value grid is the greatest number you can make with 8 counters.

100s	10s	1s
●●●● ●●	●	●

Do you agree? Explain your answer.

100s	10s	1s

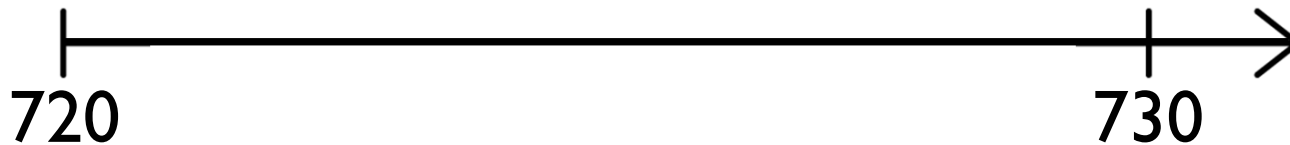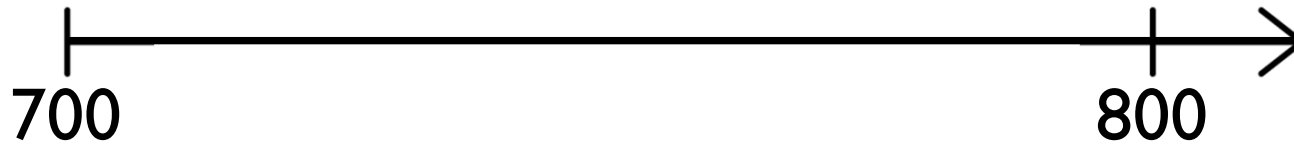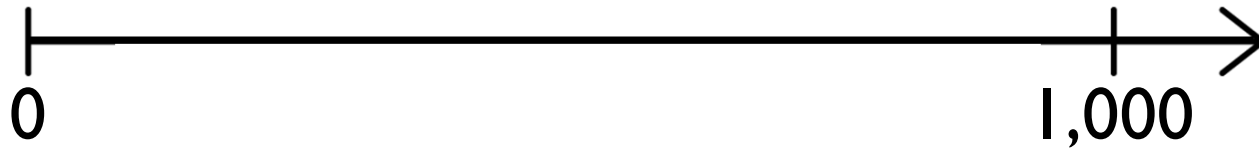Dora: The place value chart shows 607

I think it shows 670 — Jack

Who is correct? Explain your reasoning.

Estimate where seven hundred and twenty-five will go on each of the number lines.

Explain why it is not in the same place on each number line.

If the arrow is pointing to 780, what could the start and end numbers be?

Find three different ways and explain your reasoning.

10 more than my number is the same as 100 less than 320

What is my number?

Explain how you know.

Write your own similar problem to describe the original number.

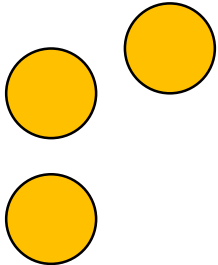I think of a number, add ten, subtract one hundred and then add one.

My answer is 256

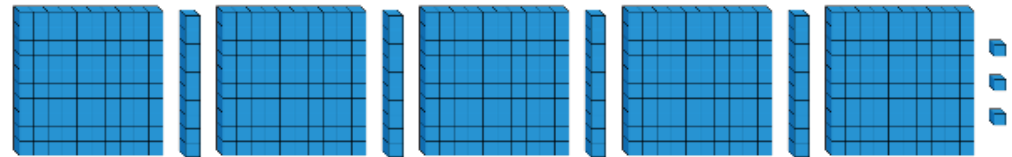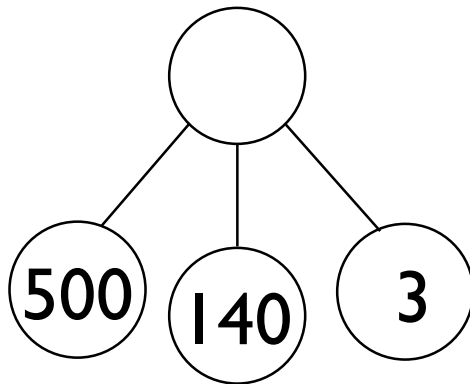What number did I start with?

Explain how you know.

What can you do to check?

A counter is missing on the place value chart.

Hundreds	Tens	Ones
●● ●		●

What number could it have been?

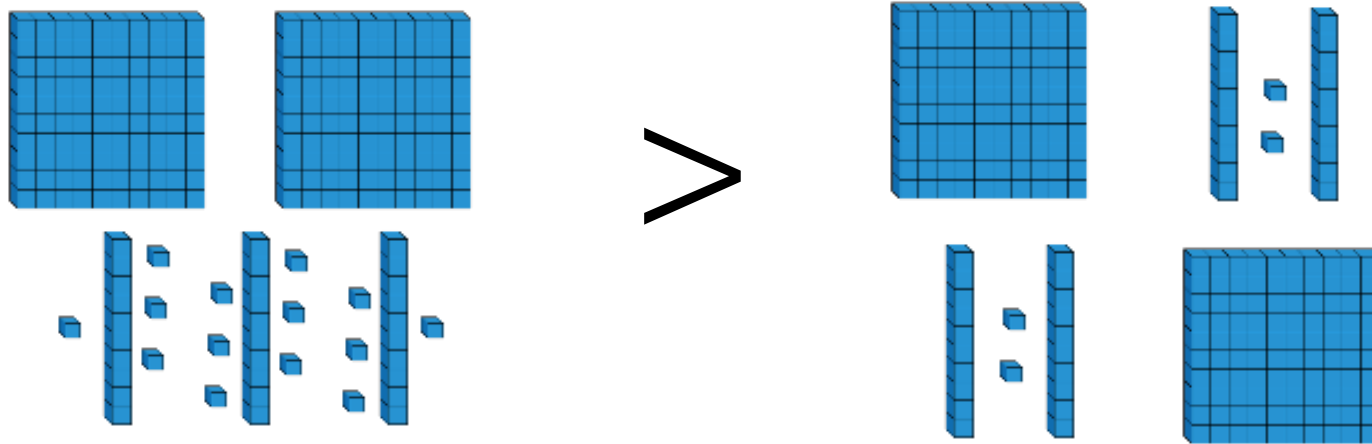Which image is the odd one out?

| 539 | 540 | 541 | 542 | 543 | 544 |
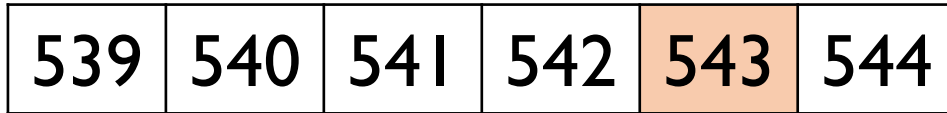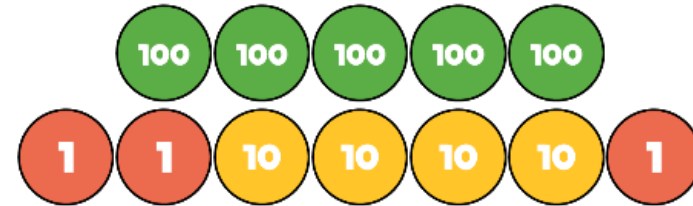
Explain why.

How else can you represent the number?

True or False?

Explain your answer.

Amir has 3 jars of sweets.

A   B   C

Jar A contains 235 sweets.

Jar C contains 175 sweets.

Jar A has the most sweets in. Jar C has the least sweets in.

How many sweets could be in jar B?
Explain how you know.

I am thinking of a number.

It is between 300 and 500

The digits add up to 14

The difference between the greatest digit and the smallest digit is 2

What could my number be?

Is there only one option?
Explain each step of your working.

Whitney has six different numbers.

She put them in ascending order then accidentally spilt some ink onto her page. Two of her numbers are now covered in ink.

214, 243, 256, 289

What could the hidden numbers be?
Explain how you know.

True or False?

When ordering numbers you only need to look at the place value column with the highest value.

Odd One Out

100, 150, 200, 215, 300

Which is the odd one out? Explain how you know.

Which is quicker: counting to 50 in 10s or counting to 150 in 50s?

Explain your answer.

Always, Sometimes, Never

- When counting in 50s starting from 0, the numbers are all even.

- There are only two digits in a multiple of 50

- Only the hundreds and tens column changes when counting in 50s.