

# Place Value

Master The Curriculum



# 3

Fluency Teaching Slides

# Hundreds

# 3



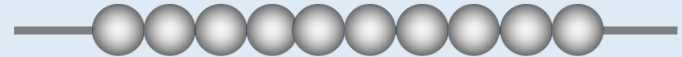
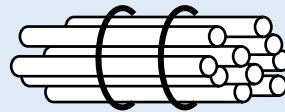
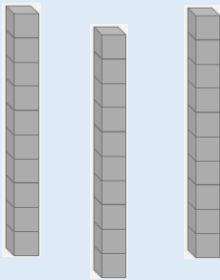
Fluency Teaching Slides

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## Activity 1

## Hundreds

Use bundles of straws in tens, bead strings and Base 10 to explore how many tens make a hundred.  
Use the equipment to count up and down in tens to make 100.



Say these sentences as you count.

There are 3 tens this is thirty.  
There are \_\_\_\_\_ this is \_\_\_\_\_.  
There are \_\_\_\_\_ tens in one hundred.

## Activity 2

## Hundreds

There are 100 sweets in each jar.



How many sweets are there altogether?  
Write your answer in numerals and words.



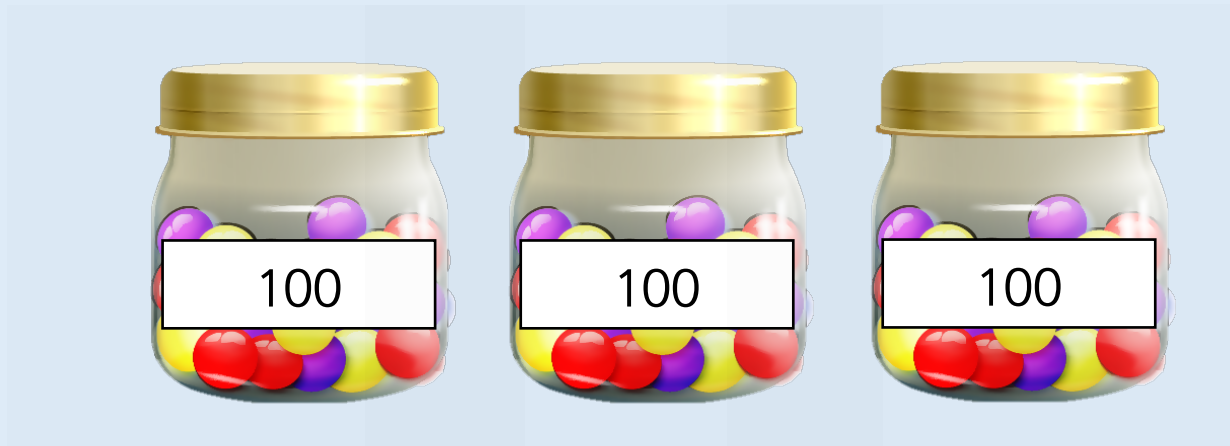
*What do these digits mean/represent?*



## Activity 2

## Hundreds

There are 100 sweets in each jar.



How many sweets are there altogether?  
Write your answer in numerals and words.

300  
Three hundred

## Activity 2

## Hundreds

There are 100 sweets in each jar.



How many sweets are there altogether?  
Write your answer in numerals and words.

## Activity 2

## Hundreds

There are 100 sweets in each jar.



How many sweets are there altogether?  
Write your answer in numerals and words.

600  
Six hundred

## Activity 2

## Hundreds

There are 100 sweets in each jar.



How many sweets are there altogether?  
Write your answer in numerals and words.

## Activity 2

## Hundreds

There are 100 sweets in each jar.



How many sweets are there altogether?  
Write your answer in numerals and words.

1,000

One thousand

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## Activity 2

## Hundreds

There are 100 footballs in each box.



How many footballs are there altogether?  
Write your answer in numerals and words.

## Activity 2

## Hundreds

There are 100 footballs in each box.



How many footballs are there altogether?  
Write your answer in numerals and words.

500

Five hundred

## Activity 3

## Hundreds

Complete the number tracks.

200	300		500			800	
-----	-----	--	-----	--	--	-----	--

	900	800			500		
--	-----	-----	--	--	-----	--	--



*If we continue counting in tens, what do we say after 100?*



## Activity 3

## Hundreds

Complete the number tracks.

200	300	400	500	600	700	800	900
-----	-----	-----	-----	-----	-----	-----	-----

1000	900	800	700	600	500	400	300
------	-----	-----	-----	-----	-----	-----	-----

### True or False?



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

### True or False?



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

True, because if you start with zero and add 100 you get an even number, and you are adding another even number so the number will always be even.

## 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.



## Always, Sometimes, Never?

- When counting in hundreds, the ones column changes.

Never

- When counting in hundreds, the hundreds column changes.

Always

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

Sometimes





Tia thinks the place value grid is showing the number nine.

Hundreds	Tens	Ones
<div>100</div> <div>100</div> <div>100</div> <div>100</div> <div>100</div> <div>100</div>		

Do you agree? Explain why.

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

What other numbers could you make?



Tia thinks the place value grid is showing the number nine.

Hundreds	Tens	Ones
100 100 100		
100 100 100		
100 100 100		

Tia is incorrect because the nine counters are in the hundreds column so they represent nine hundreds. The number is 900.

The smallest number that can be made is 9.

Other possible numbers include:

90

180

450

Etc.

How many tens have you made? How else can we say this?

What do these digits mean/represent?

How many ones have you made? How else can you say this?

If we continue counting in tens, what do we say after 100?

What numbers wouldn't we say?



# Numbers to 1,000 3



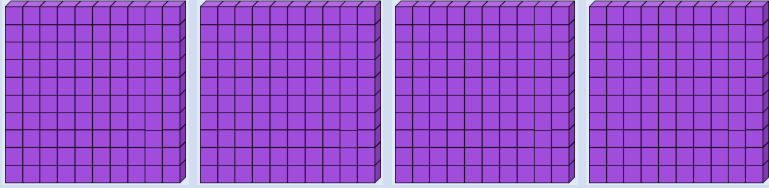
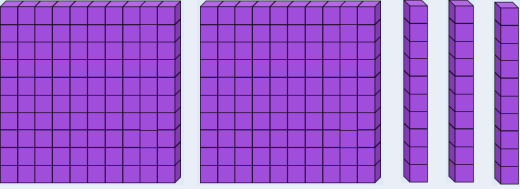
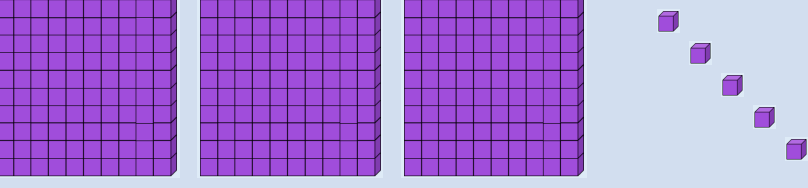
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# Activity 1

## Numbers to 1,000

Write down the number represented with Base 10 in each case.

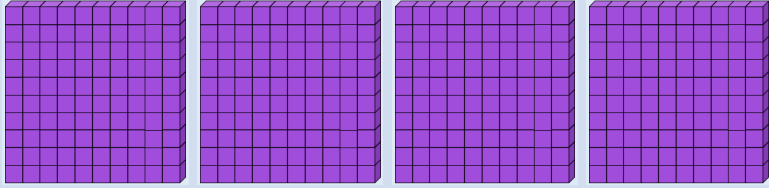
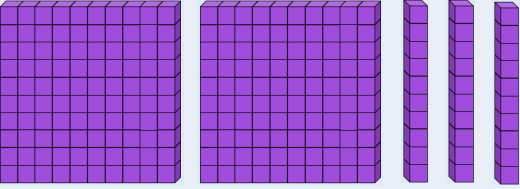
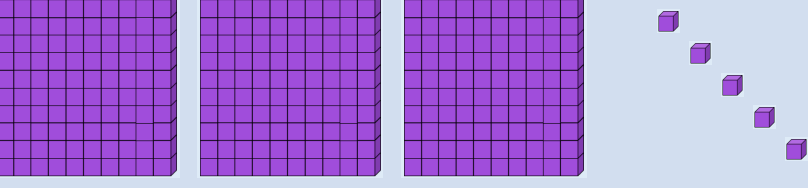
Representation	Number
	
	
	

*Does it matter which order you build the number in?*

# Activity 1

## Numbers to 1,000

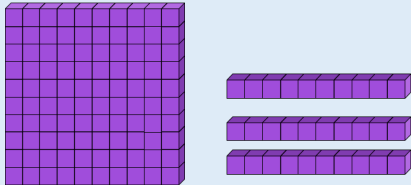
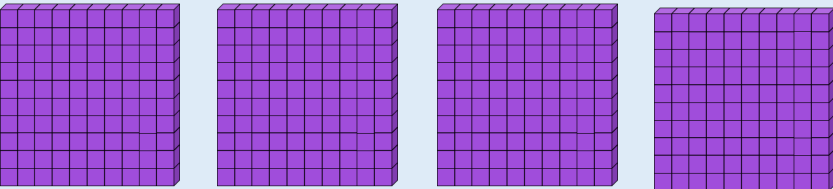
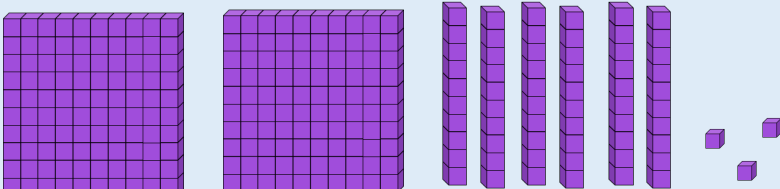
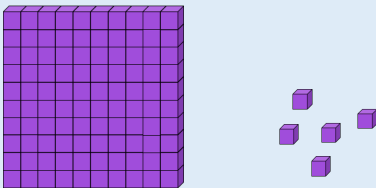
Write down the number represented with Base 10 in each case.

Representation	Number
	400
	230
	305

# Activity 1

## Numbers to 1,000

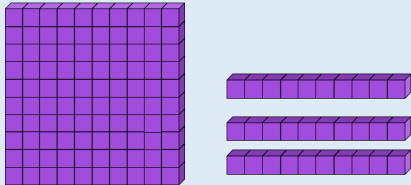
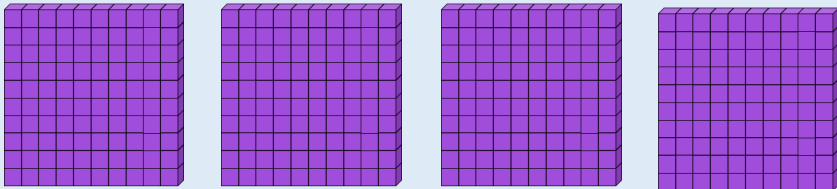
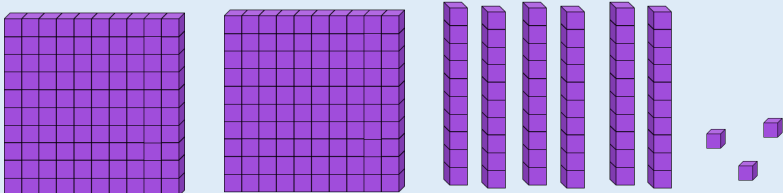
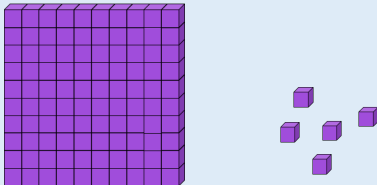
Write down the number represented with Base 10 in each case.

Representation	Number
	
	
	
	

# Activity 1

## Numbers to 1,000

Write down the number represented with Base 10 in each case.

Representation	Number
	130
	400
	263
	105

## Activity 2

## Numbers to 1,000

Use Base 10 to represent the numbers.

700

407

120

999



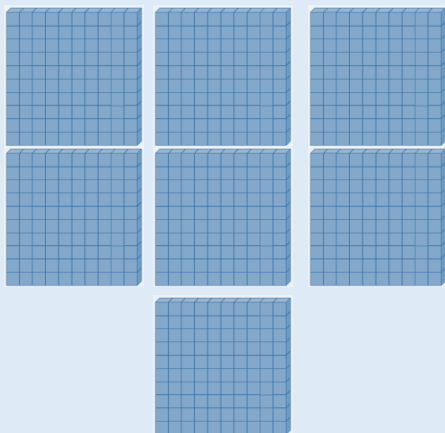
*Do you prefer using the Base 10 or drawing the Base 10? Why?*

## Activity 2

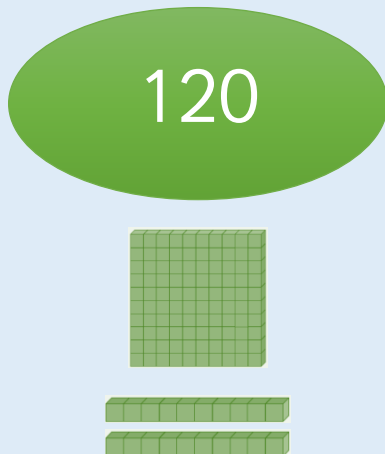
## Numbers to 1,000

Use Base 10 to represent the numbers.

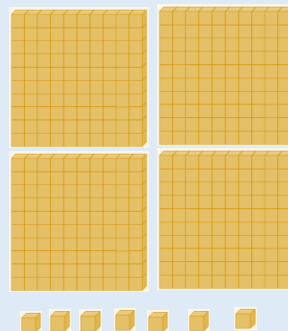
700



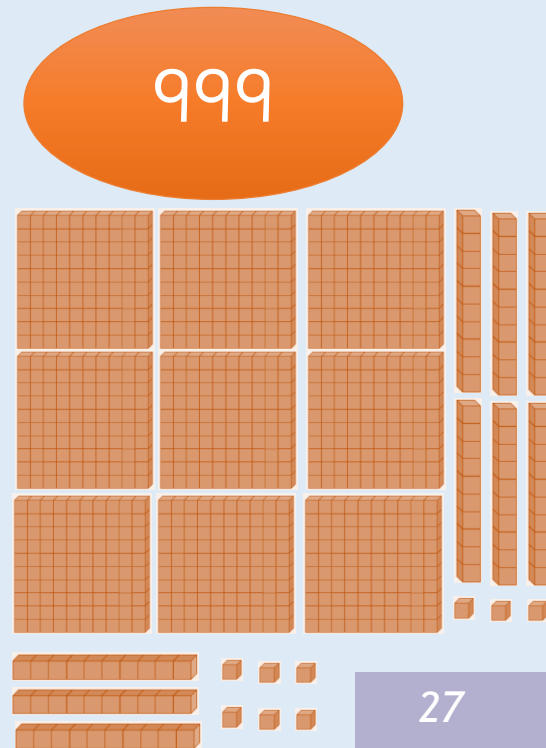
120



407



999



## Activity 2

## Numbers to 1,000

Use Base 10 to represent the numbers.

600

360

809

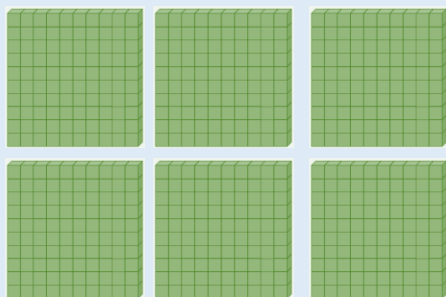


## Activity 2

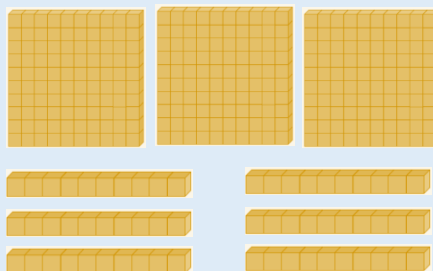
## Numbers to 1,000

Use Base 10 to represent the numbers.

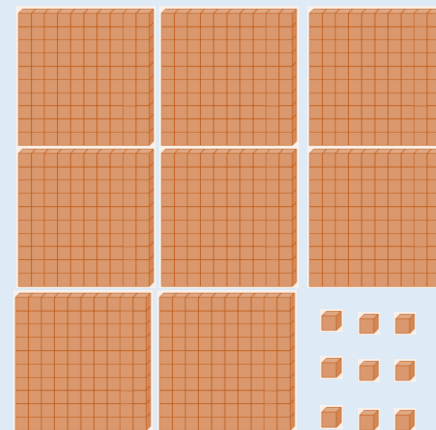
600



360



809



## Activity 2

## Numbers to 1,000

Use Base 10 to represent the numbers.

399

732

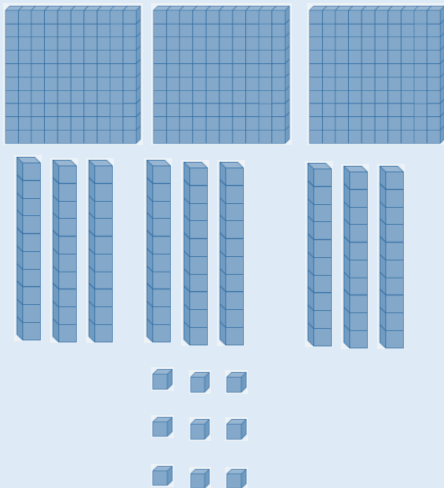
105

## Activity 2

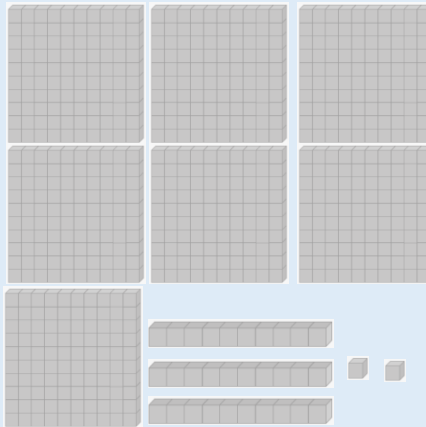
## Numbers to 1,000

Use Base 10 to represent the numbers.

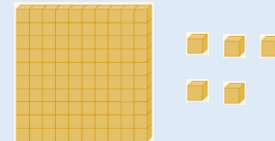
399



732



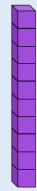
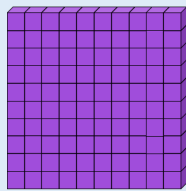
105



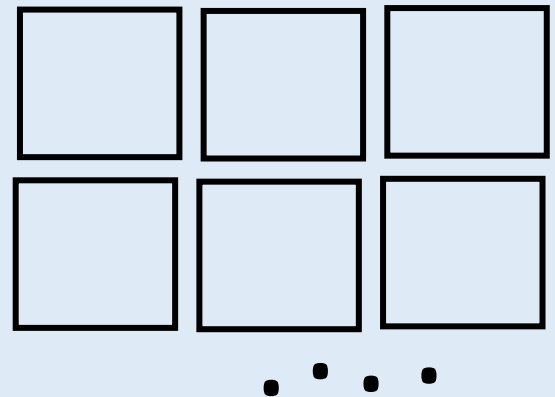
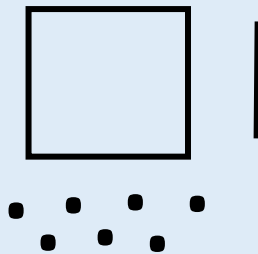
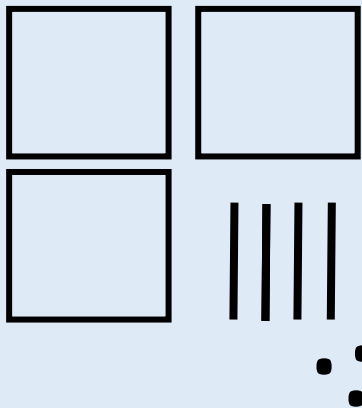
# Lesson

# Numbers to 1,000

You can represent a number by drawing Base 10.



What number do these drawings represent?



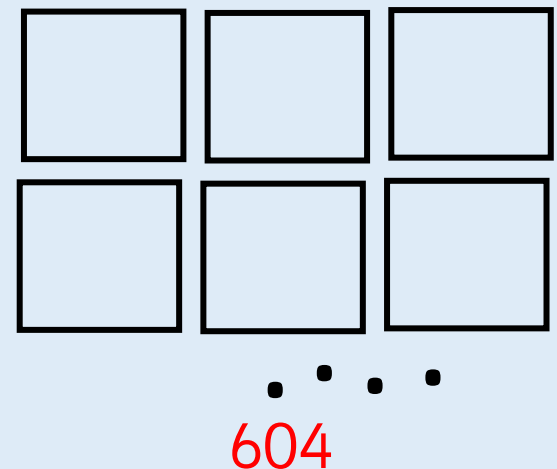
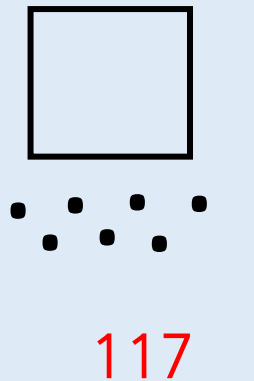
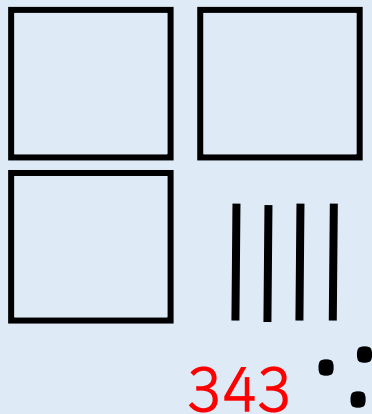
# Lesson

# Numbers to 1,000

You can represent a number by drawing Base 10.



What number do these drawings represent?



## Activity 3

## Numbers to 1,000



Zach is drawing numbers.  
Can you complete them for him?

246



390



706



*Can you create a part-whole model using or drawing Base 10 in each circle?*

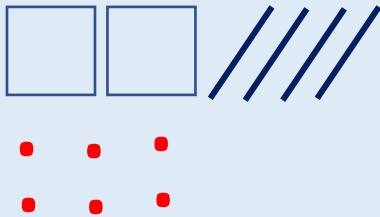
## Activity 3

## Numbers to 1,000

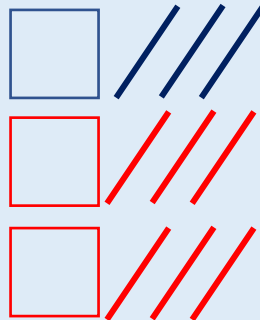


Zach is drawing numbers.  
Can you complete them for him?

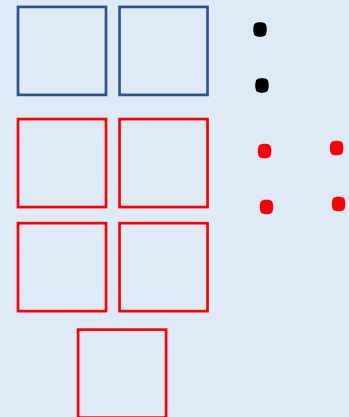
246



390



706



## Activity 3

## Numbers to 1,000



Malachi is drawing numbers.  
Can you complete them for him?

438

--	--	--

 $\frac{1}{10}$ 

580

--	--

 $\frac{1}{10}$ 

105

--



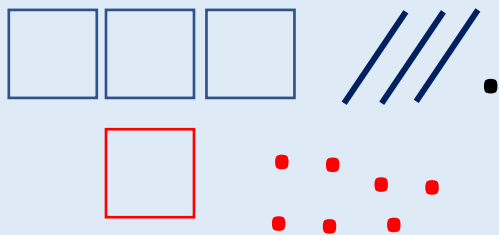
## Activity 3

## Numbers to 1,000

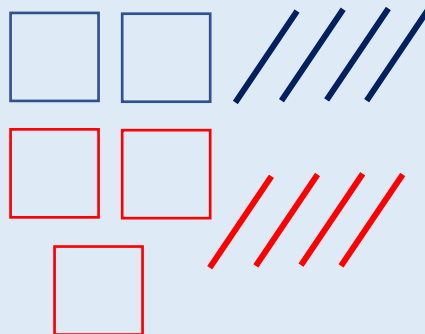


Malachi is drawing numbers.  
Can you complete them for him?

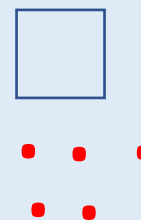
438



580

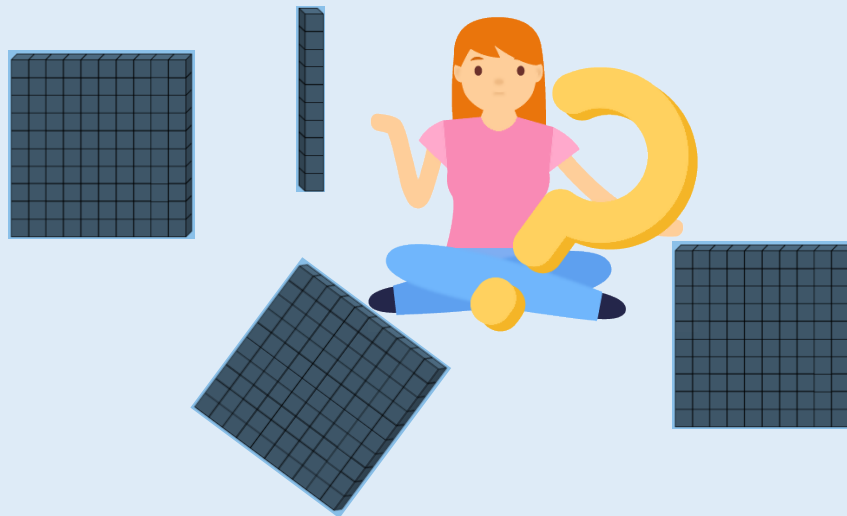


105





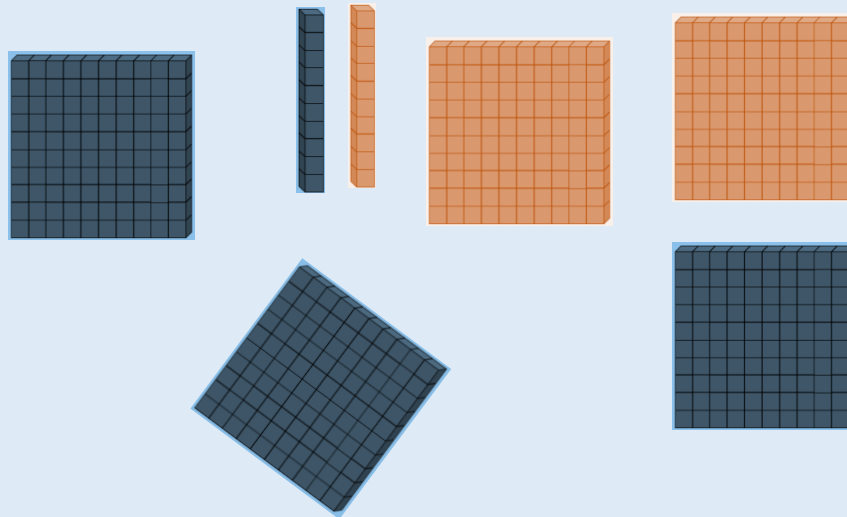
Malachi has 520 in Base 10 but some are covered.



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



Malachi has 520 in Base 10 but some are covered.

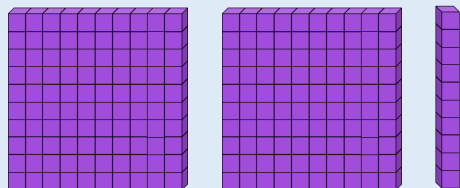


You can make the missing amount by adding two hundreds and one ten, or one hundred and eleven tens, etc.

Which child has made the number 210?



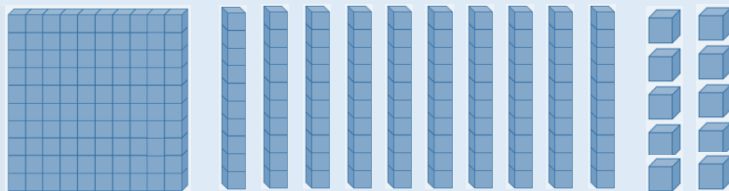
Rosie



Explain how you know.



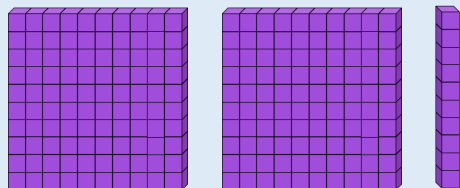
Leanna



Which child has made the number 210?



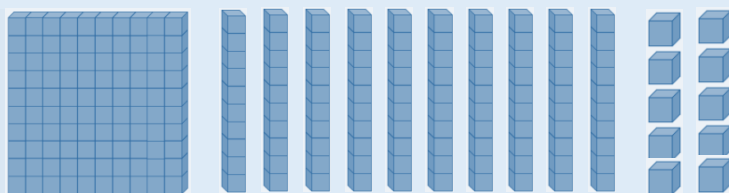
Rosie



Rosie and Leanna have both made the number 210 but represented it differently.



Leanna



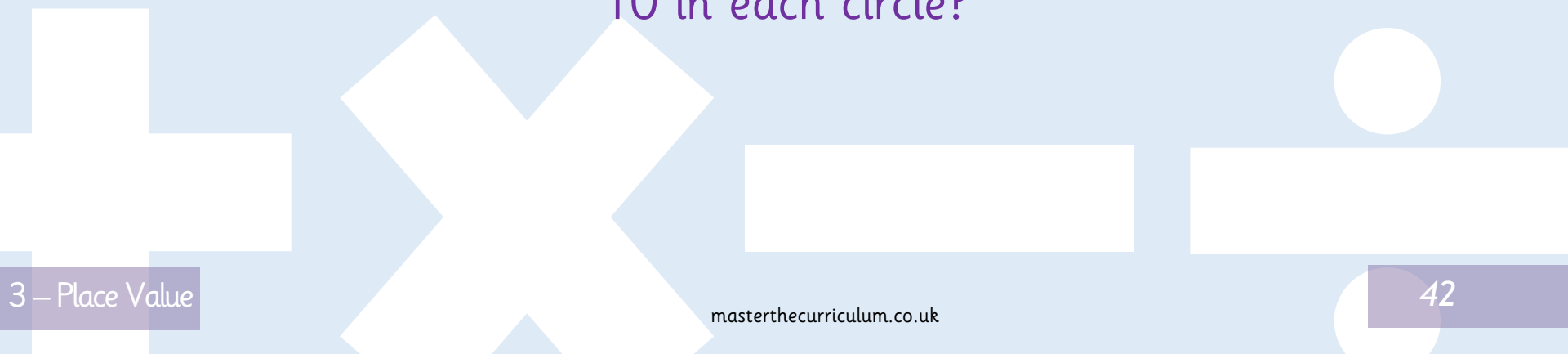
2 hundreds, 1 ten is the same as  
1 hundred 10 tens and 10 ones.

Does it matter which order you build the number in?

Can you have more than 9 of the same object? E.g. 11 tens.

Do you prefer using the Base 10 or drawing the Base 10?  
Why?

Can you create a part-whole model using or drawing Base 10 in each circle?



100s, 10s  
and 1s (1)

3



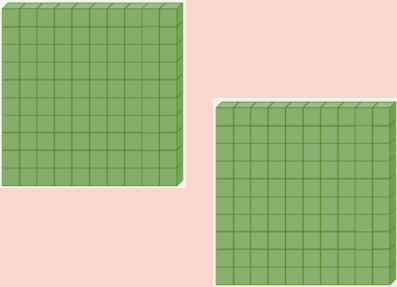
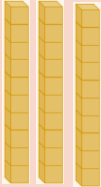
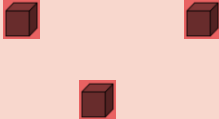
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## Activity 1

## 100s, 10s, and 1s (1)

What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

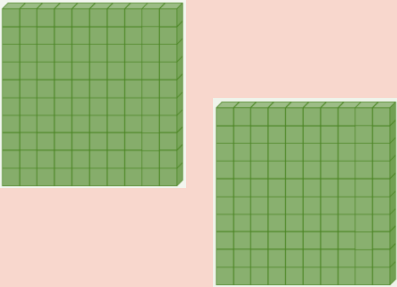
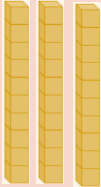
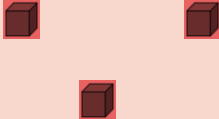
Write your answer in numerals and in words.



## Activity 1

## 100s, 10s, and 1s (1)

What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

Write your answer in numerals and in words.

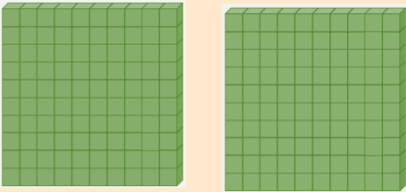
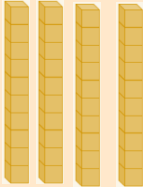

The number is: **233**

**two hundred thirty-three**

## Activity 1

## 100s, 10s, and 1s (1)

What is the value of the number represented in the place value chart?

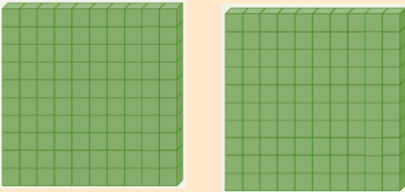
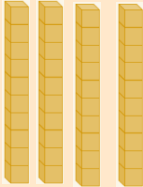

Hundreds	Tens	Ones
		

Write your answer in numerals and in words.

## Activity 1

## 100s, 10s, and 1s (1)

What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

Write your answer in numerals and in words.

The number is: 241

two hundred forty-one

## Activity 2

## 100s, 10s, and 1s (1)

Complete this place value chart so that it shows the number 354.

Hundreds	Tens	Ones
		

Represent the number using a part-whole model.

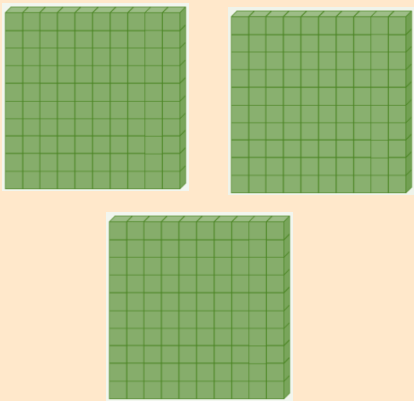
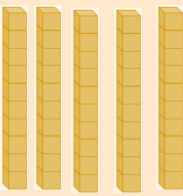
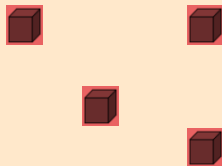


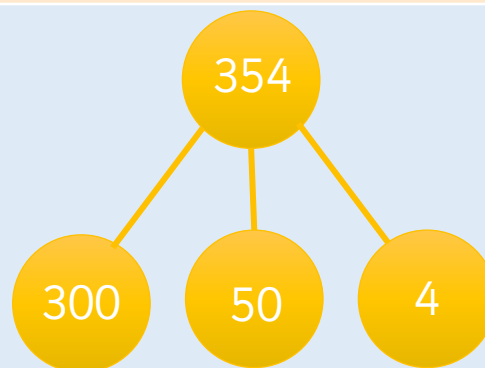
*Why is it important to put the values into the correct column on the place value chart?*

## Activity 2

## 100s, 10s, and 1s (1)

Complete this place value chart so that it shows the number 354.

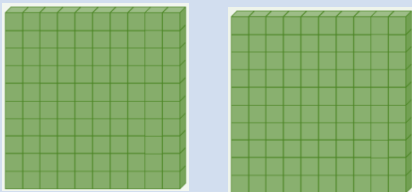
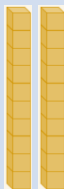
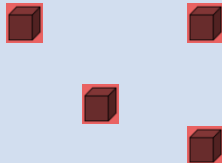
Hundreds	Tens	Ones
		



## Activity 2

## 100s, 10s, and 1s (1)

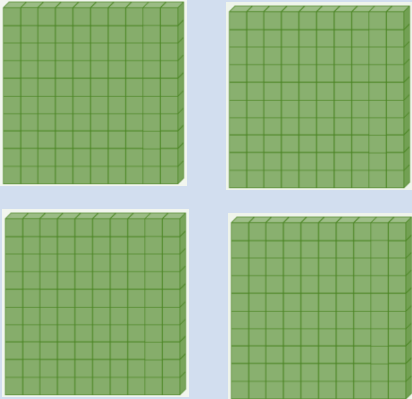

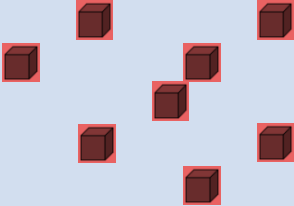
Complete this place value chart so that it shows the number 428.

Hundreds	Tens	Ones
		

## Activity 2

## 100s, 10s, and 1s (1)

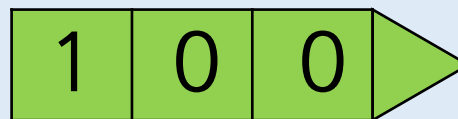
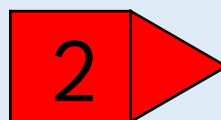
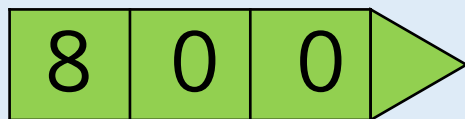
Complete this place value chart so that it shows the number 428.

Hundreds	Tens	Ones
		

## Activity 3

## 100s, 10s, and 1s (1)

What number do the arrow cards make?

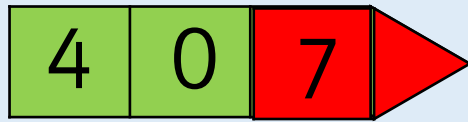




## Activity 3

## 100s, 10s, and 1s (1)

What number do the arrow cards make?



407



802

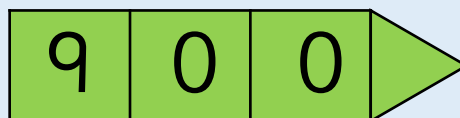
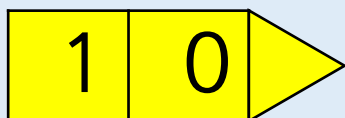
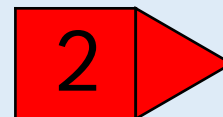
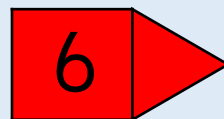
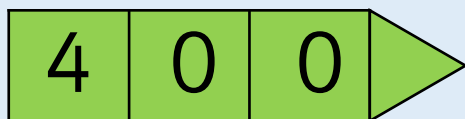


105

## Activity 3

## 100s, 10s, and 1s (1)

What number do the arrow cards make?



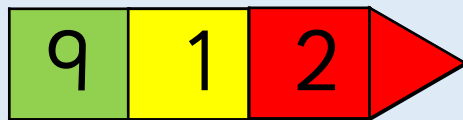
## Activity 3

## 100s, 10s, and 1s (1)

What number do the arrow cards make?



446



912

## Activity 3

## 100s, 10s, and 1s (1)

How many different ways can you make the number 452?  
Can you write each way in expanded form?  
(E.g.  $400 + 50 + 2$ )



Compare your answer with a partner.

## Activity 3

## 100s, 10s, and 1s (1)

How many different ways can you make the number 452?  
Can you write each way in expanded form?  
(E.g.  $400 + 50 + 2$ )



**Possible answers:**

$$100 + 100 + 100 + 100 + 50 + 2$$

$$400 + 10 + 10 + 10 + 10 + 10 + 2$$

$$200 + 200 + 50 + 2$$

$$400 + 20 + 20 + 10 + 2$$

$$100 + 100 + 200 + 50 + 2$$

# Reasoning - 1

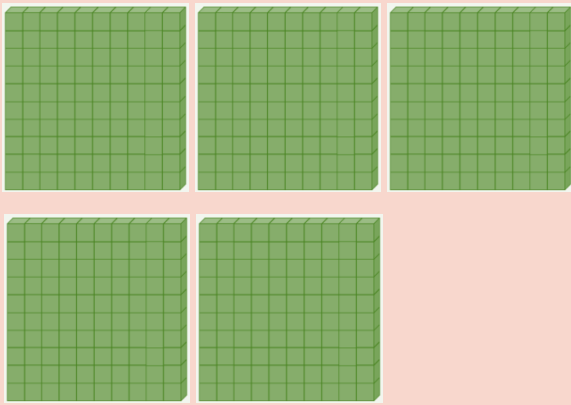
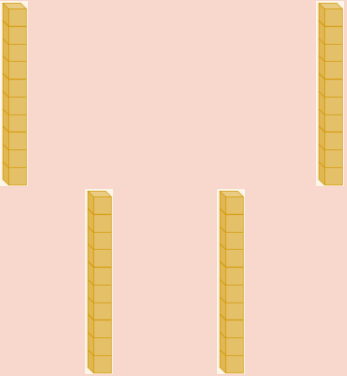
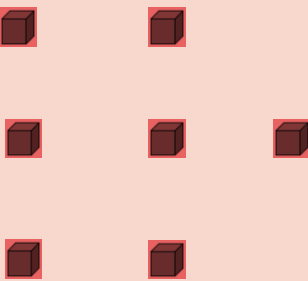
## 100s, 10s, and 1s (1)



Esin

The place value grid shows the number 457.

Do you agree?  
Explain your reasoning.

Hundreds	Tens	Ones
		

What do you notice about the number shown?

## Reasoning - 1

## 100s, 10s, and 1s (1)



Esin

The place value grid shows the number 457.

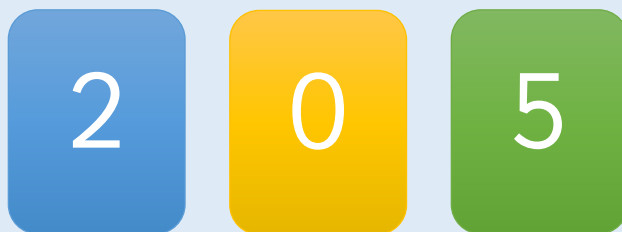
Do you agree?  
Explain your reasoning.

Hundreds	Tens	Ones

I disagree because there are 5 hundreds, 4 tens, and 7 ones so the number is 547.  
I notice that 547 and 457 have the same digits but are in a different order so the digits have different values.

## Reasoning - 2

100s, 10s, and 1s (1)



Using each digit card, which numbers can you make?

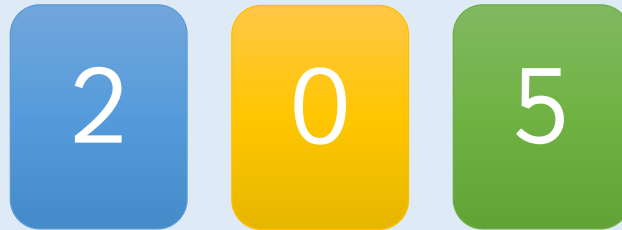
Hundreds	Tens	Ones

Use the place value grid to help. Compare your answer with a partner.



## Reasoning - 2

100s, 10s, and 1s (1)



Using each digit card, which numbers can you make?

Hundreds	Tens	Ones

The numbers that can be made are:  
205, 250, 502, 520, 025 (25), 052 (52)

## Discuss

## 100s, 10s, and 1s (1)

What is the value of the number shown on the place value chart?

Why is it important to put the values into the correct column on the place value chart?

How many more are needed to complete the place value chart?

Can you make you own numbers for a friend using Base 10?

100s, 10s  
and 1s (2)

3



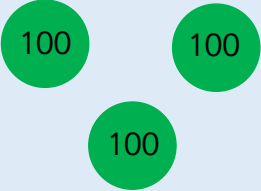
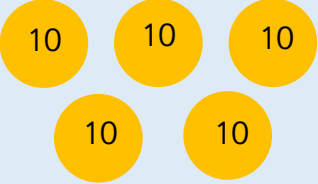
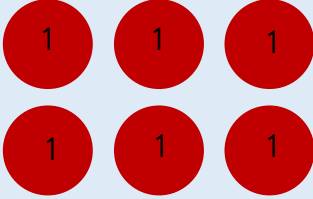
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## Activity 1

## 100s, 10s, and 1s (2)

What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

If one more 10 is added, what number would be shown?

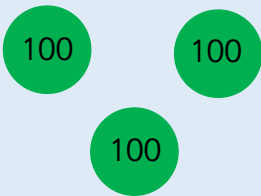
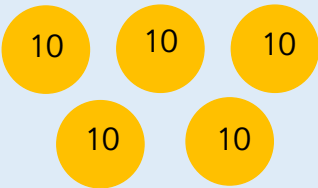
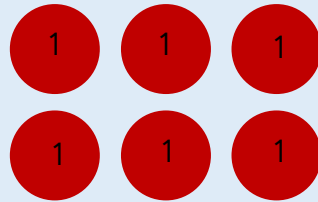


*Why do we not call this number 300506?*

# Activity 1

## 100s, 10s, and 1s (2)

What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

If one more 10 is added, what number would be shown?

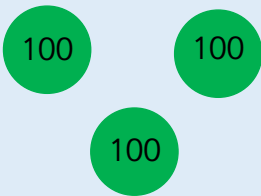

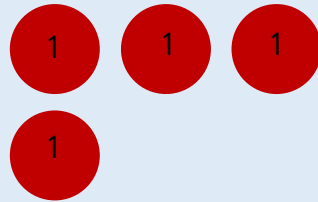
The number is: 356

If one more 10 is added: 366

## Activity 1

## 100s, 10s, and 1s (2)

What is the value of the number represented in the place value chart?

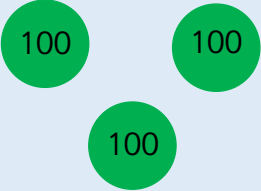

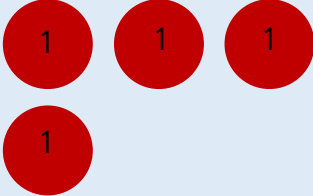
Hundreds	Tens	Ones
		

If one more 10 is added, what number would be shown?

## Activity 1

## 100s, 10s, and 1s (2)

What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

If one more 10 is added, what number would be shown?

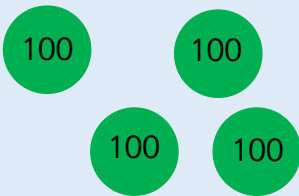

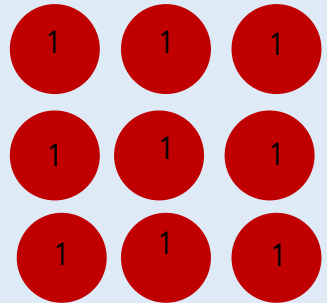
The number is: 334

If one more 10 is added: 344

# Activity 1

## 100s, 10s, and 1s (2)

What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

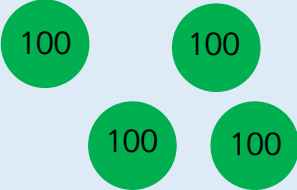

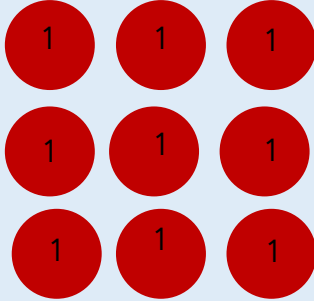
If one more 10 is added, what number would be shown?



# Activity 1

## 100s, 10s, and 1s (2)

What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

If one more 10 is added, what number would be shown?

The number is: 429

If one more 10 is added: 439

## Activity 2

## 100s, 10s, and 1s (2)

Use place value counters and a place value grid to represent the numbers:

615

208

37



*What number would be shown if 1/10/100 was added?*

# Activity 2

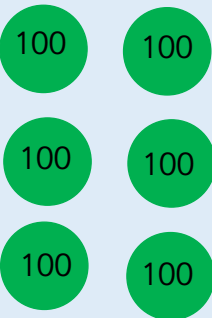

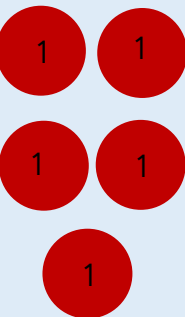
## 100s, 10s, and 1s (2)


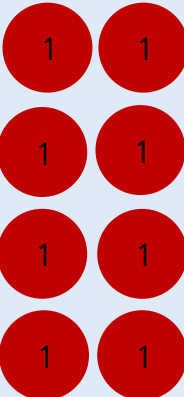
Use place value counters and a place value grid to represent the numbers:


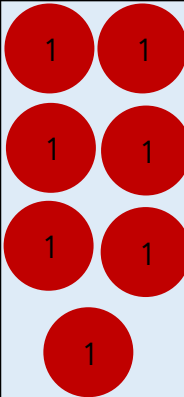
615

208

37

Hundreds	Tens	Ones
		

Hundreds	Tens	Ones
		

Hundreds	Tens	Ones
		

## Activity 2

## 100s, 10s, and 1s (2)

Use place value counters and a place value grid to represent the numbers:

210

315

54

## Activity 2





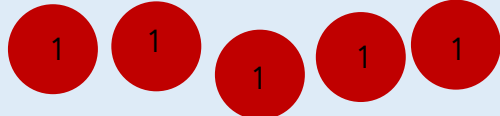

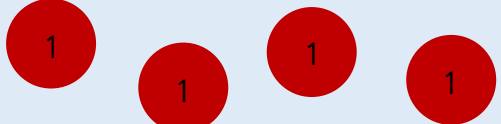
## 100s, 10s, and 1s (2)

Use place value counters and a place value grid to represent the numbers:

210

315

54

Hundreds	Tens	Ones
		
		
		

# Activity 3

## 100s, 10s, and 1s (2)

Use  $<$ ,  $>$  or  $=$  to make the statement correct.

100s	10s	1s
100	10 10	1 1 1 1



100s	10s	1s
100 100 100	10 10 10 10	1



100s	10s	1s
100 100 100 100	10	1 1 1



*Why is it important to put the values into the correct column on the place value grid?*


# Activity 3

## 100s, 10s, and 1s (2)

Use  $<$ ,  $>$  or  $=$  to make the statement correct.

100s	10s	1s
		



100s	10s	1s
		



100s	10s	1s
		

# Activity 3

## 100s, 10s, and 1s (2)

Use  $<$ ,  $>$  or  $=$  to make the statement correct.





## Activity 3

## 100s, 10s, and 1s (2)


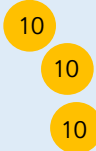

Use  $<$ ,  $>$  or  $=$  to make the statement correct.

100s	10s	1s
		



100s	10s	1s
		



100s	10s	1s
		

# Activity 3

## 100s, 10s, and 1s (2)

Use  $<$ ,  $>$  or  $=$  to make the statement correct.



## Activity 3

## 100s, 10s, and 1s (2)

Use  $<$ ,  $>$  or  $=$  to make the statement correct.


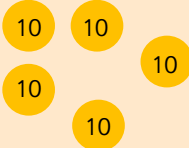


Using the place value counters, how many different ways can you make three hundred and fifty?

Hundreds	Tens	Ones

Show your solutions as a calculations.

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

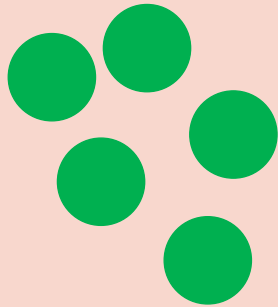
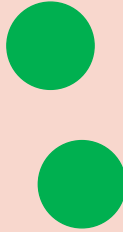

Hundreds	Tens	Ones
		

E.g. three hundreds counters and 5 tens counters  
which its calculation would be:

$$350 = 100 + 100 + 100 + 10 + 10 + 10 + 10 + 10$$

## Reasoning - 2

## 100s, 10s, and 1s (2)

100s	10s	1s
		



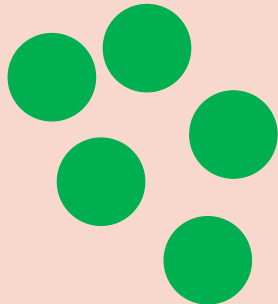
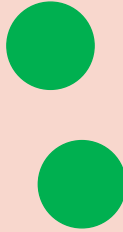

Malachi

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

Do you agree? Explain your answer.

## Reasoning - 2

## 100s, 10s, and 1s (2)

100s	10s	1s
		



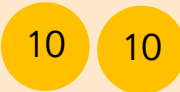

Malachi

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

Malachi is incorrect because you could make 800 which is greater than 521, he thinks you need to have at least one counter in each column.

## Reasoning - 3

## 100s, 10s, and 1s (2)

100s	10s	1s
		



Leanna

The place value chart shows 621.

I think it shows 670




Zach

Who is correct? Explain your reasoning.



## Reasoning - 3

## 100s, 10s, and 1s (2)

100s	10s	1s
		



Leanna

The place value chart shows 621.

Leanna is correct because there are 6 counters in the hundreds column, 2 in tens, and 1 in ones.

I think it shows 670

If it was 670 there would be 6 hundreds, and 7 tens, and none in the ones column.



Zach

## Discuss

## 100s, 10s, and 1s (1)

What is the same and what is different about Base 10 and PV counters?

What number would be shown if 1/10/100 was added?

Why is it important to put the values into the correct column on the place value grid?

What do we need to do if there is a zero in the number we are representing?

# Number Line to 1,000

3



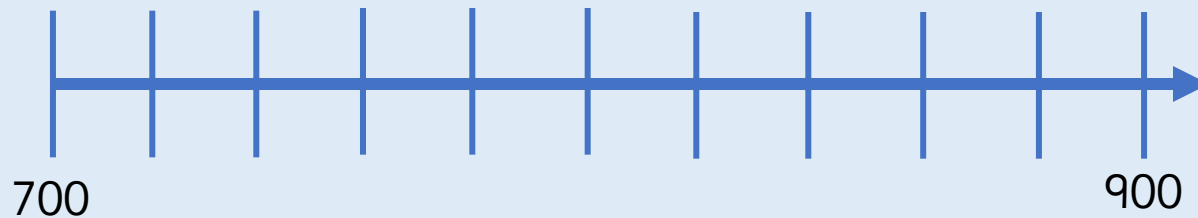
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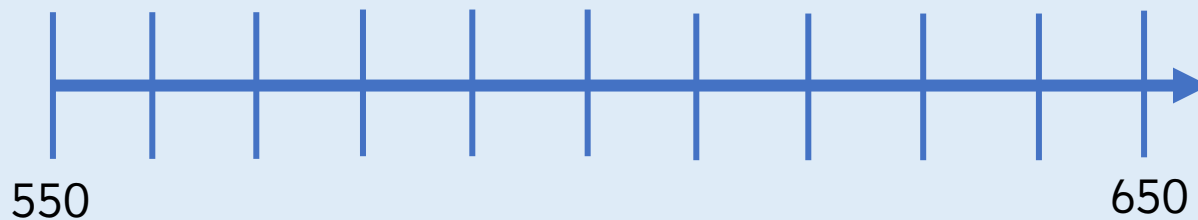
## Activity 1

## Number Line to 1,000

Draw an arrow to show the number 800.



Draw an arrow to show the number 560.

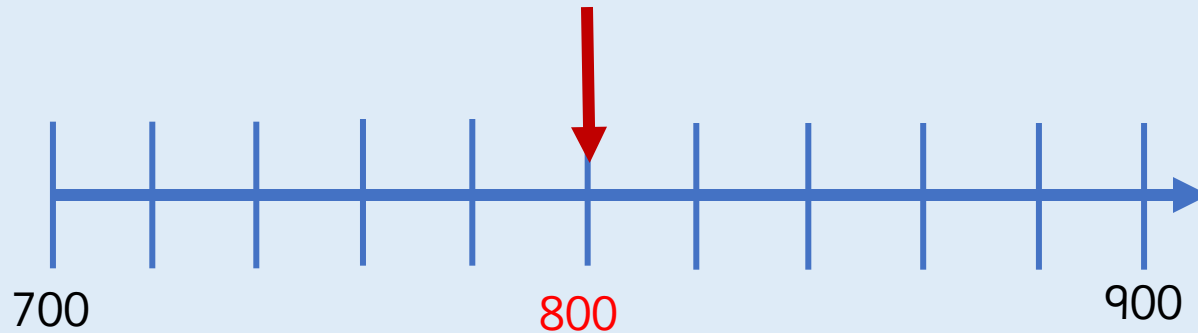


*What intervals do the number lines go up in?*

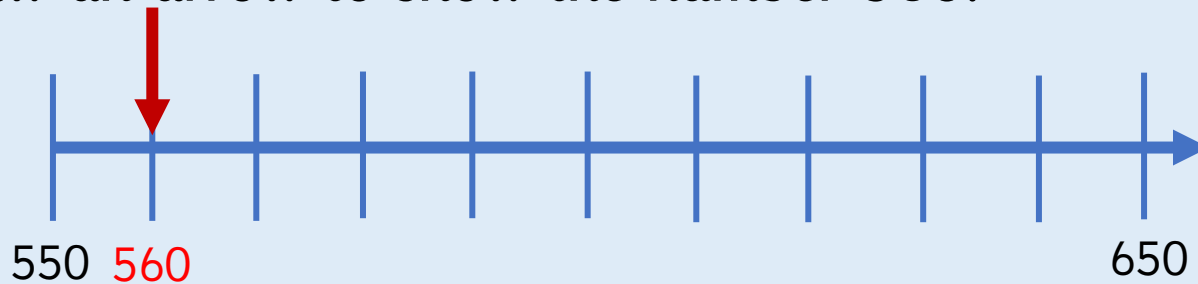
## Activity 1

## Number Line to 1,000

Draw an arrow to show the number 800.



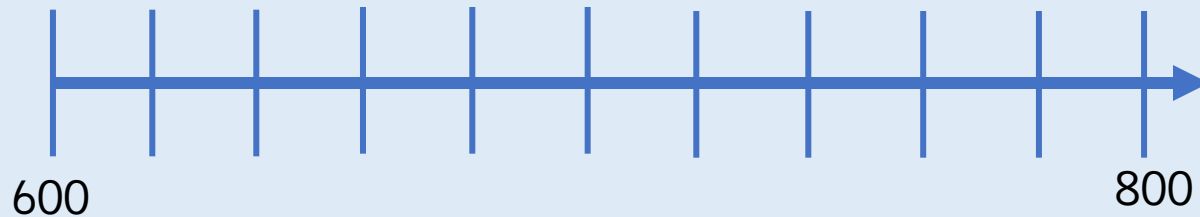
Draw an arrow to show the number 560.



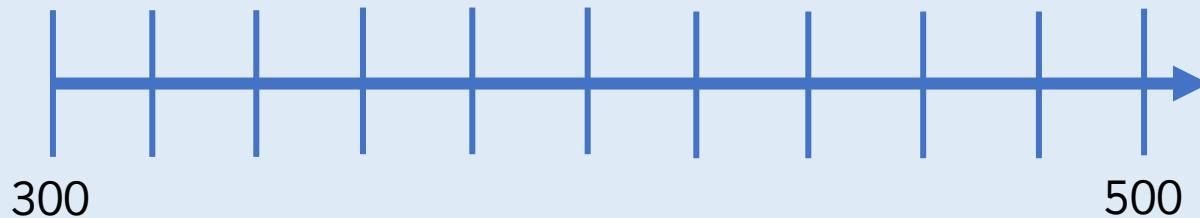
## Activity 1

## Number Line to 1,000

Draw an arrow to show the number 700.



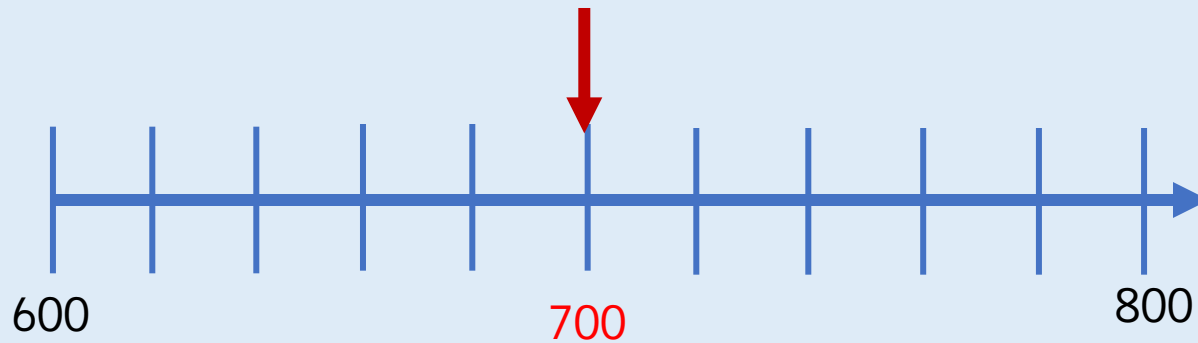
Draw an arrow to show the number 400.



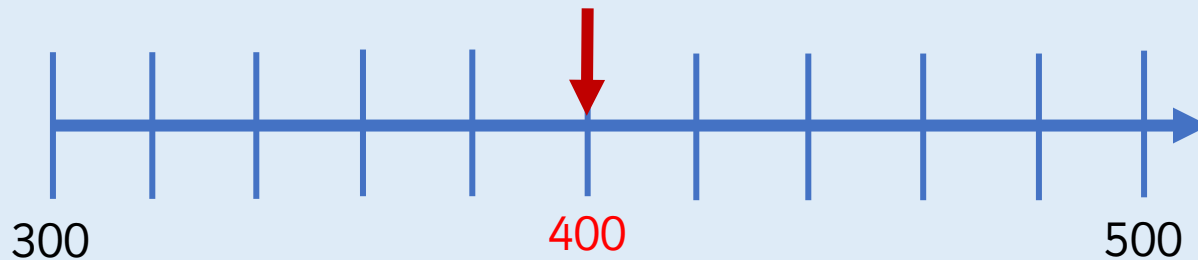
## Activity 1

## Number Line to 1,000

Draw an arrow to show the number 700.



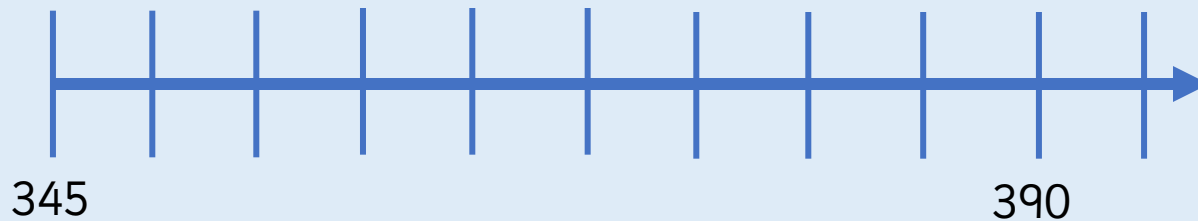
Draw an arrow to show the number 400.



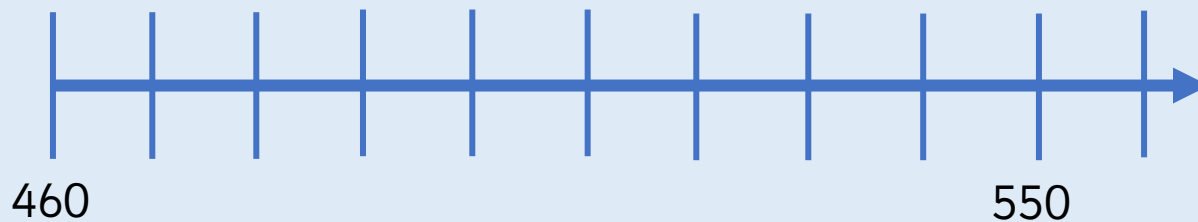
## Activity 1

## Number Line to 1,000

Draw an arrow to show the number 380.



Draw an arrow to show the number 510.

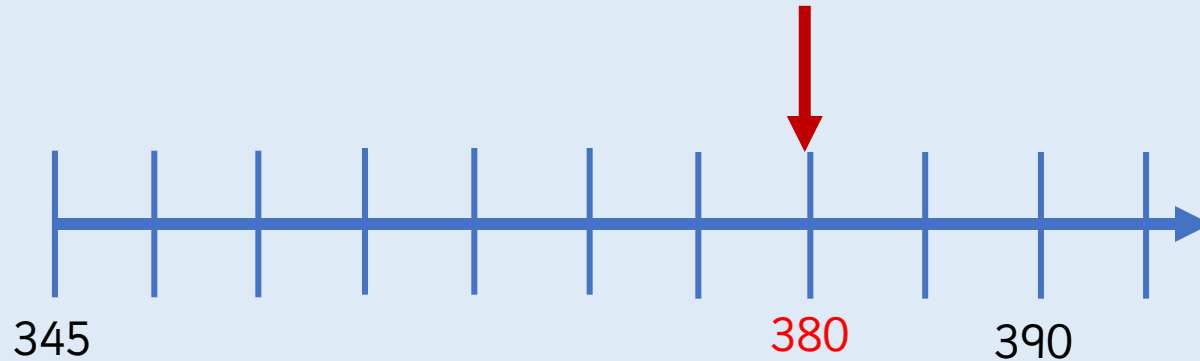




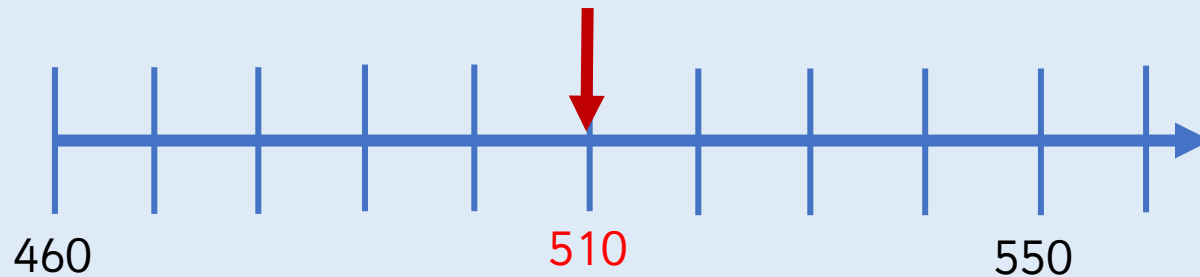
## Activity 1

## Number Line to 1,000

Draw an arrow to show the number 380.



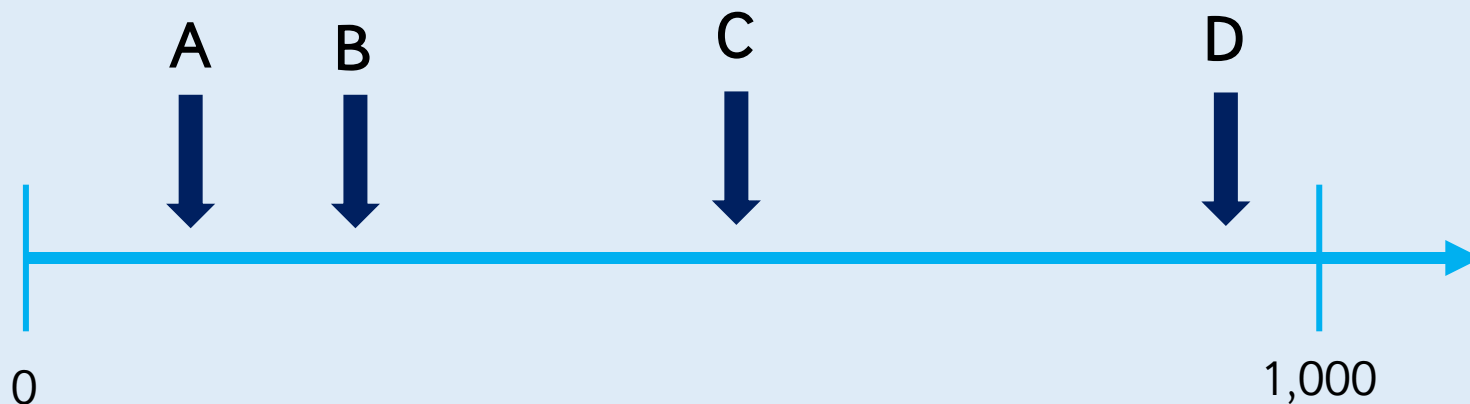
Draw an arrow to show the number 510



## Activity 2

## Number Line to 1,000

Which letter is closest to 250?

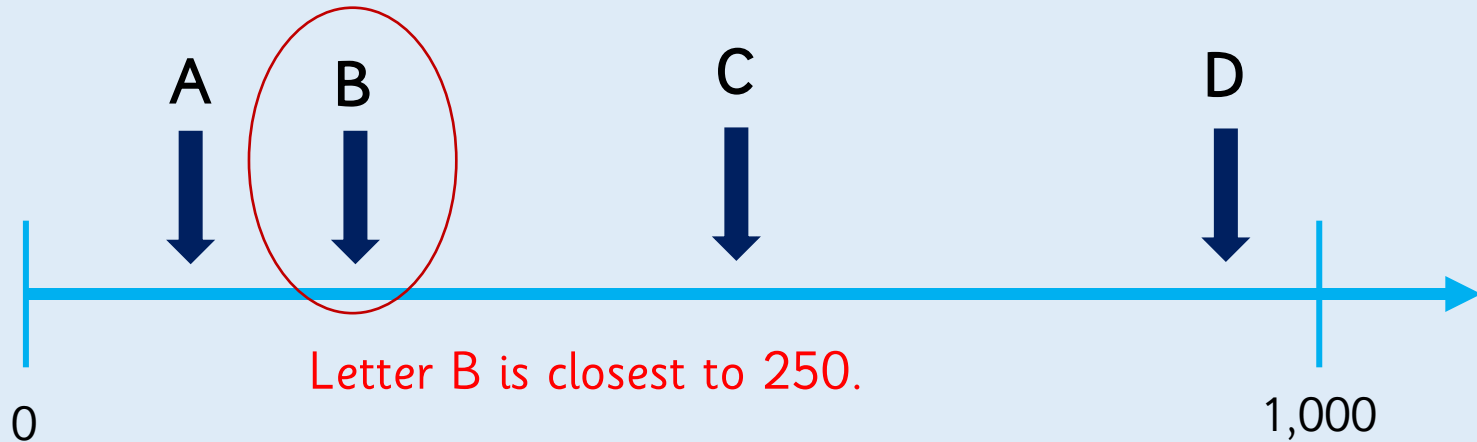


*Which side of the number line did you start from? Why?*

## Activity 2

## Number Line to 1,000

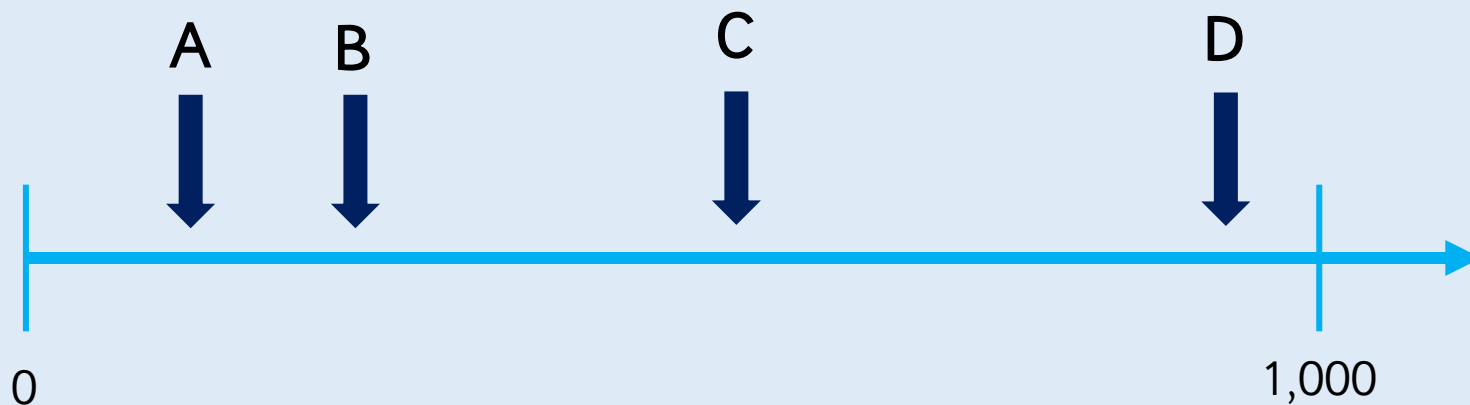
Which letter is closest to 250?



## Activity 2

## Number Line to 1,000

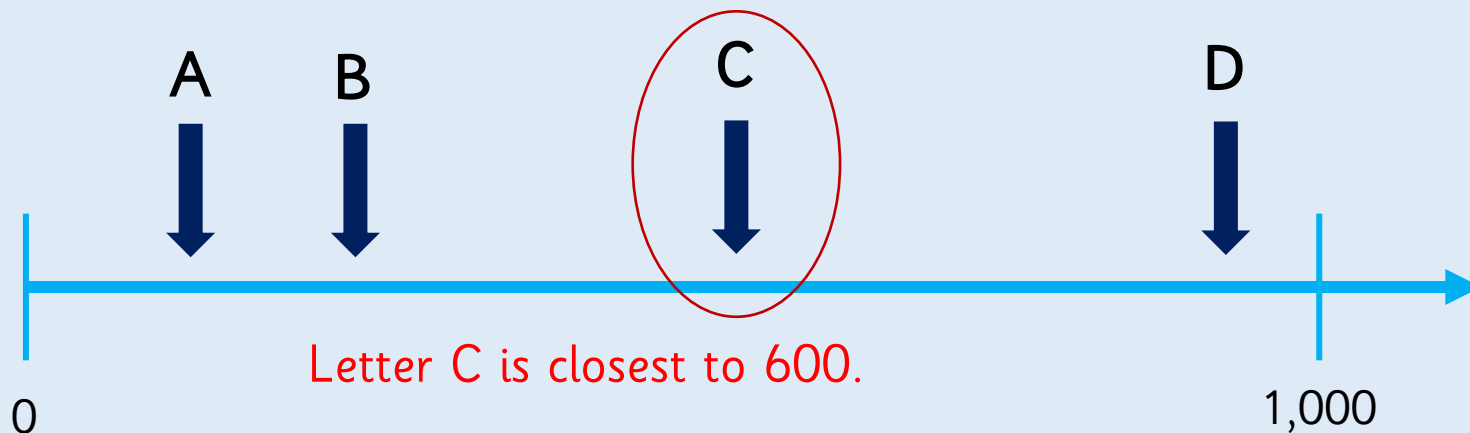
Which letter is closest to 600?



## Activity 2

## Number Line to 1,000

Which letter is closest to 600?



## Activity 3

## Number Line to 1,000

Estimate the value of A.

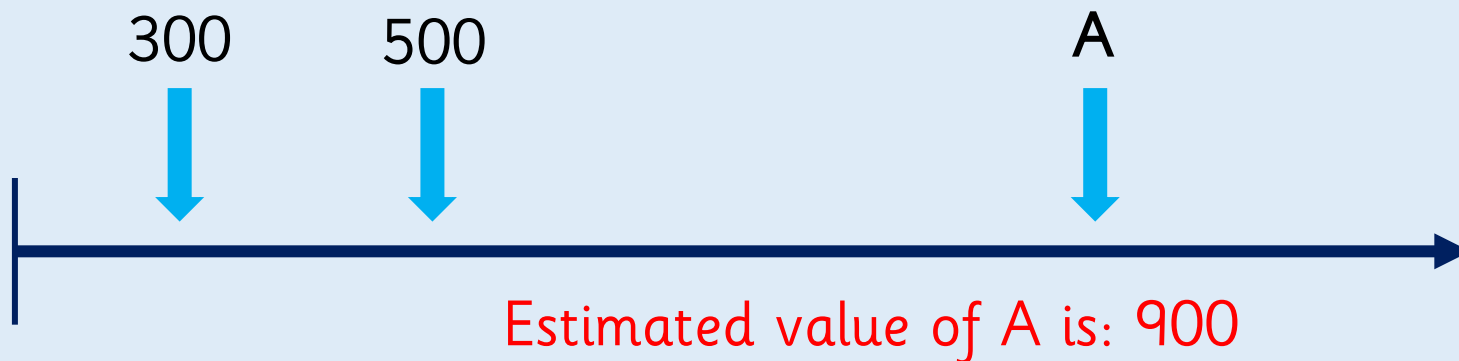


*When estimating where a number should be placed, what facts can help you?*

## Activity 3

## Number Line to 1,000

Estimate the value of A.



## Activity 3

## Number Line to 1,000

Estimate the value of A.

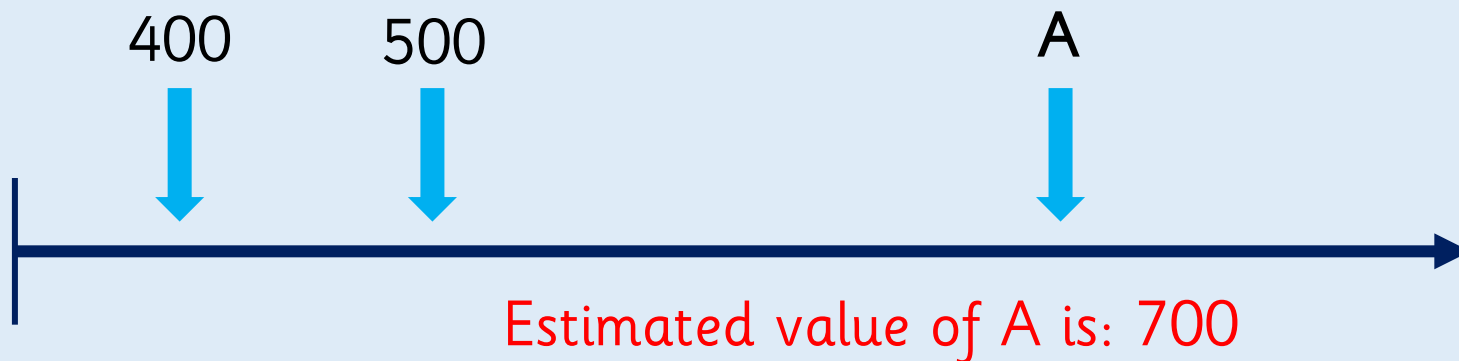




## Activity 3

## Number Line to 1,000

Estimate the value of A.



## Activity 3

## Number Line to 1,000

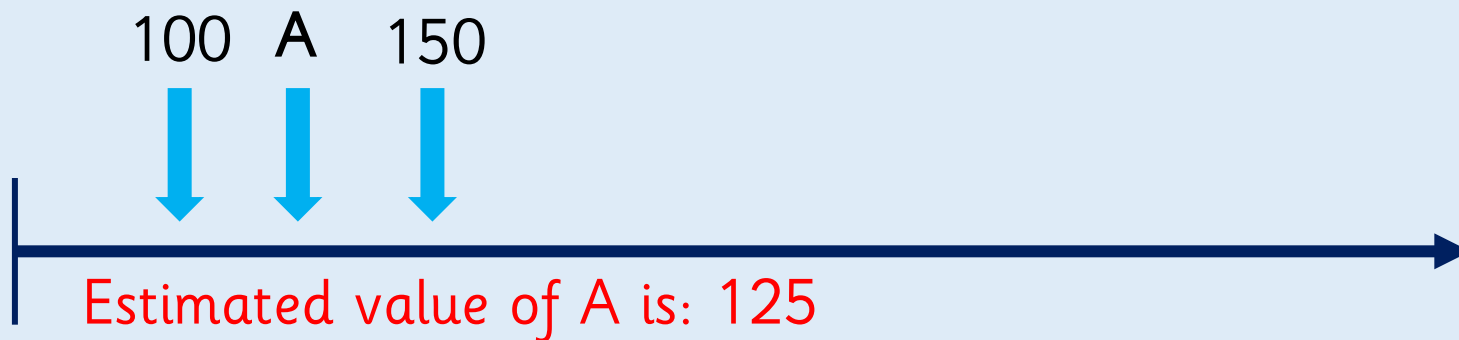
Estimate the value of A.



## Activity 3

## Number Line to 1,000

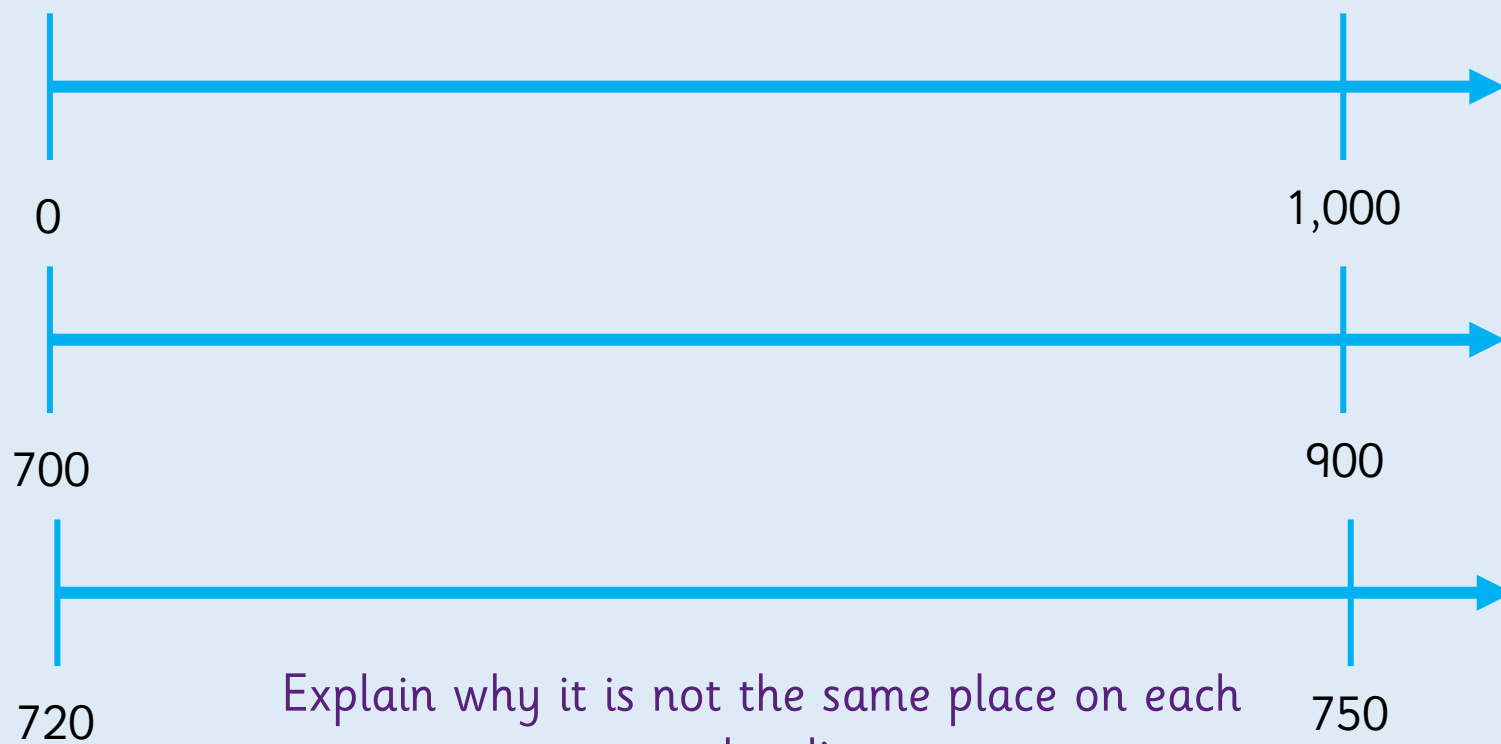
Estimate the value of A.



## Reasoning - 1

## Number Line to 1,000

Estimate where seven hundred and thirty will go on each of the number lines.

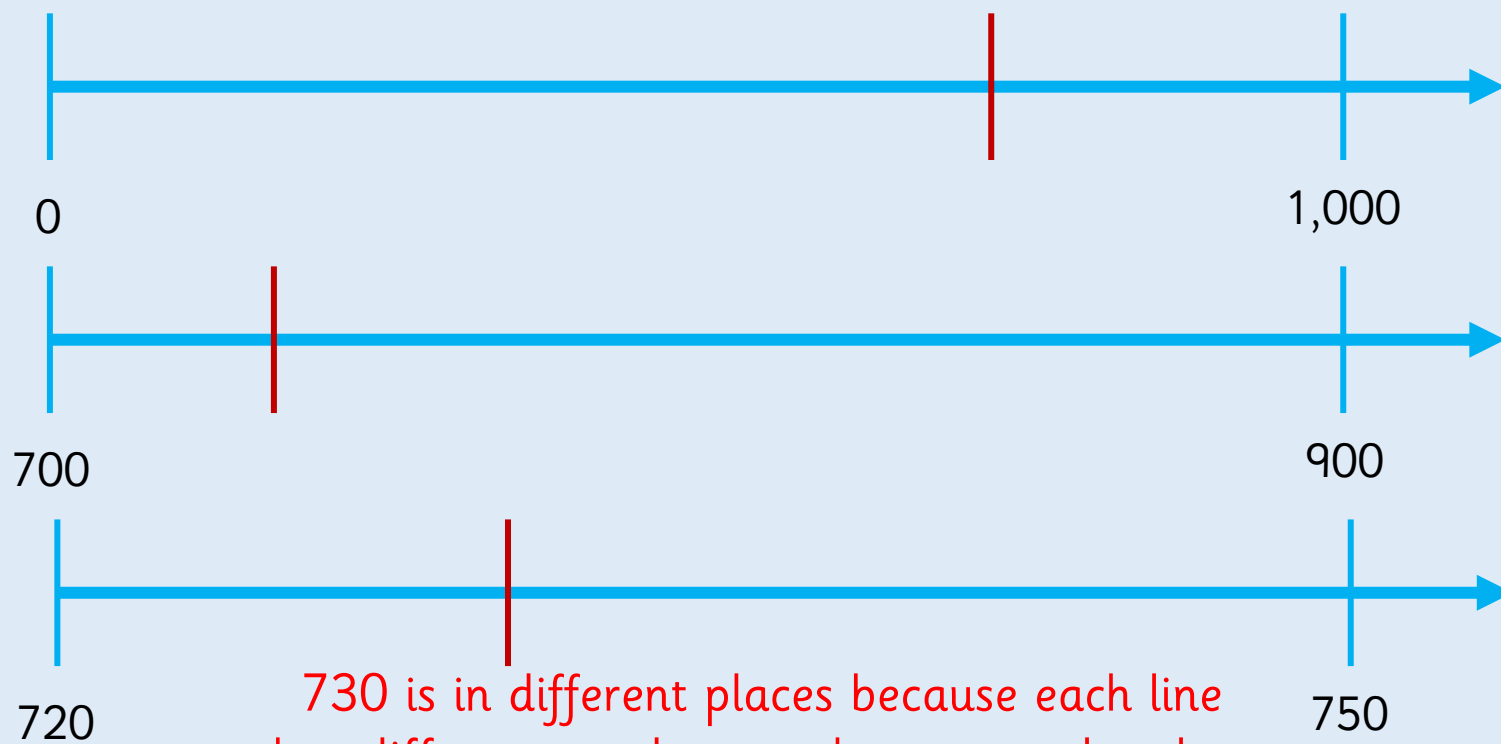


Explain why it is not the same place on each number line.

## Reasoning - 1

## Number Line to 1,000

Estimate where seven hundred and thirty will go on each of the number lines.



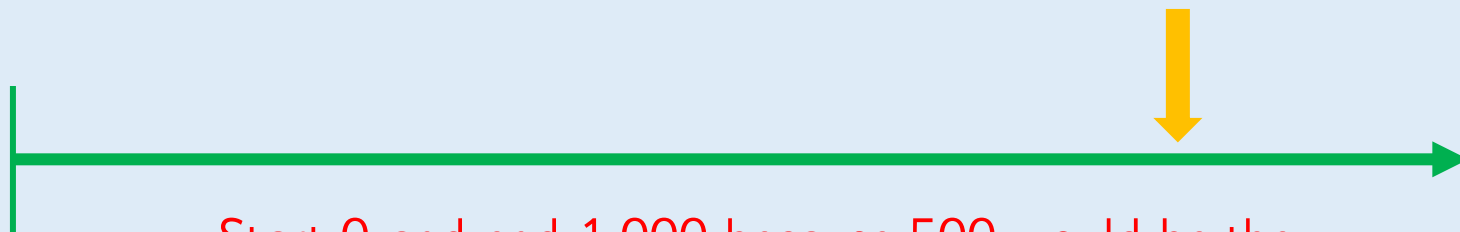
730 is in different places because each line has different numbers at the start and end so the position of 730 changes.

If the arrow is pointing to 880, what could the start and end numbers be?



Find three different ways and explain your reasoning.

If the arrow is pointing to 880, what could the start and end numbers be?



Start 0 and end 1,000 because 500 would be the middle and 880 would be further along than 500 and quite close to 1,000.

Start 830 and end 990

Start 800 and end 900

Etc.

What intervals do the number lines go up in?

Which side of the number line did you start from? Why?

When estimating where a number should be placed, what facts can help you?

Can you draw a number line where 600 is the starting number, and 650 is half way long?

What value can A definitely not be? How do you know?



# 1, 10, 100 More or Less

# 3



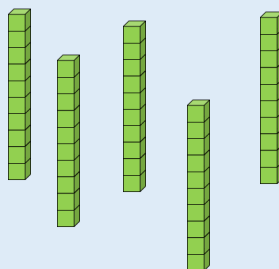
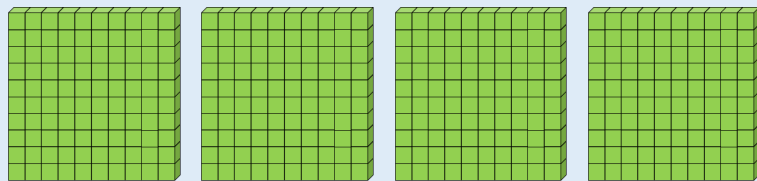
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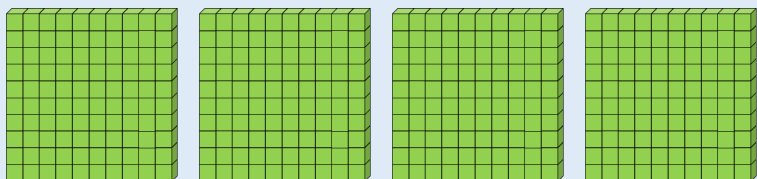
# Activity 1

## 1, 10, 100 More or Less

Put the correct number in each box.



10 less

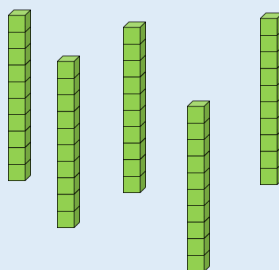
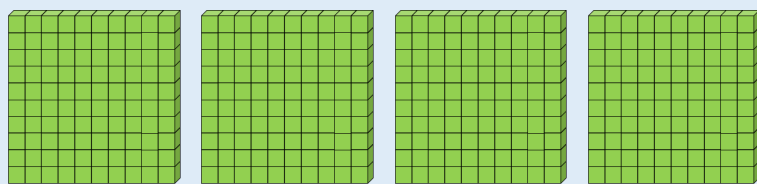


10 more

# Activity 1

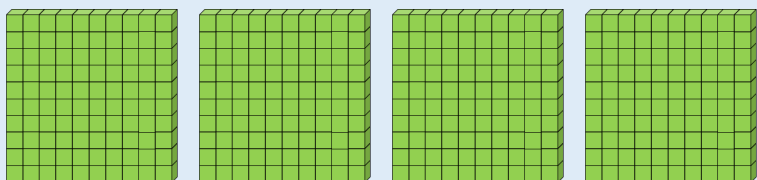
## 1, 10, 100 More or Less

Put the correct number in each box.



10 less

840



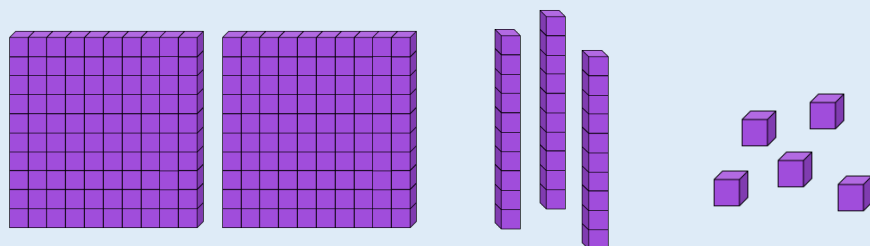
10 more

860

# Activity 1

## 1, 10, 100 More or Less

Put the correct number in each box.



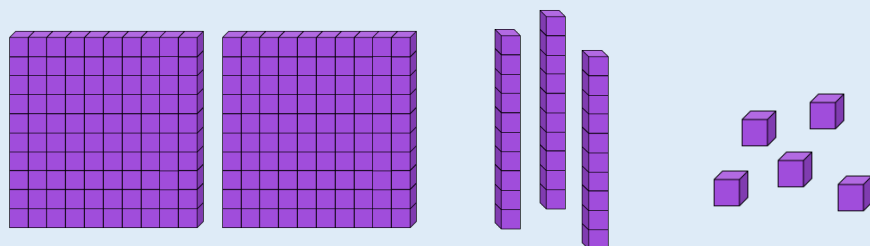
100 less

100 more

# Activity 1

## 1, 10, 100 More or Less

Put the correct number in each box.



100 less

135

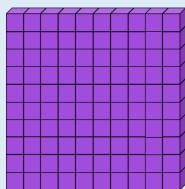
100 more

335

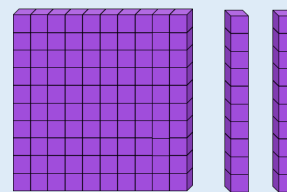
## Activity 2

## 1, 10, 100 More or Less

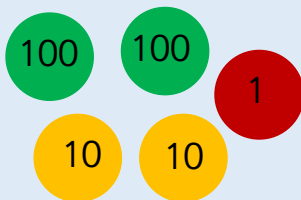
Put the correct number in each box.



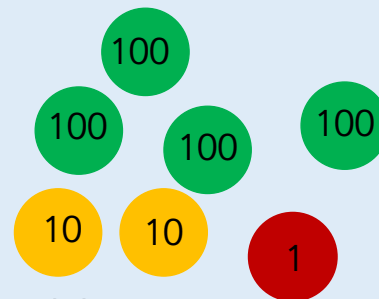
10 less



10 more



100 less



100 more

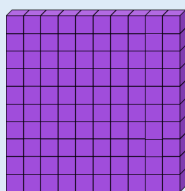


*What happens when I subtract 10 from 209?*

## Activity 2

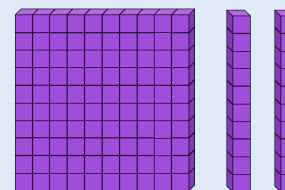
## 1, 10, 100 More or Less

Put the correct number in each box.

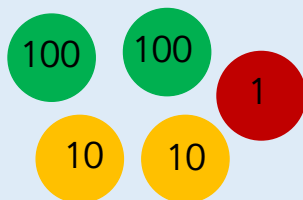


10 less

110

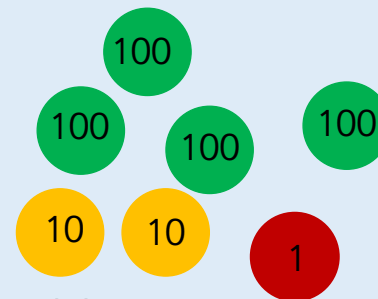


10 more



100 less

321

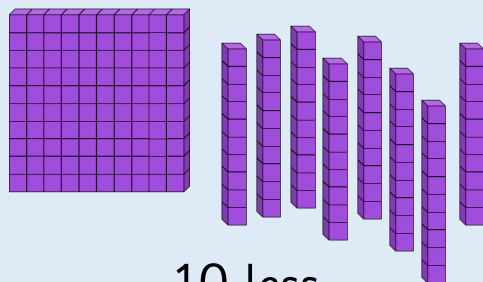


100 more

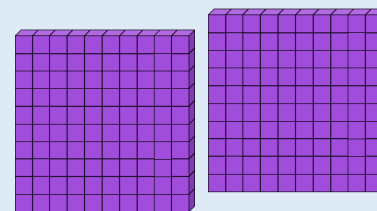
## Activity 2

## 1, 10, 100 More or Less

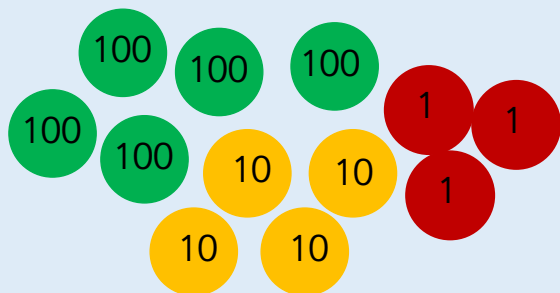
Put the correct number in each box.



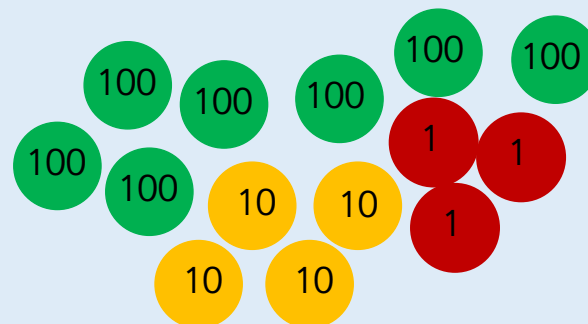
10 less



10 more



100 less



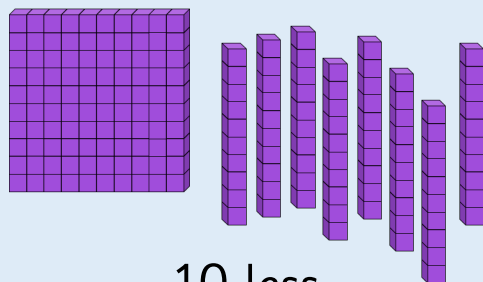
100 more



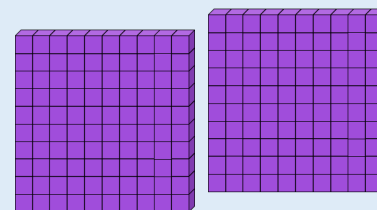
## Activity 2

## 1, 10, 100 More or Less

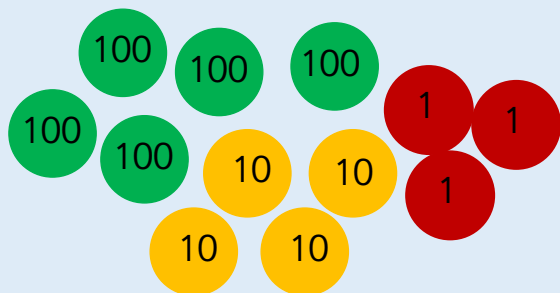
Put the correct number in each box.



190

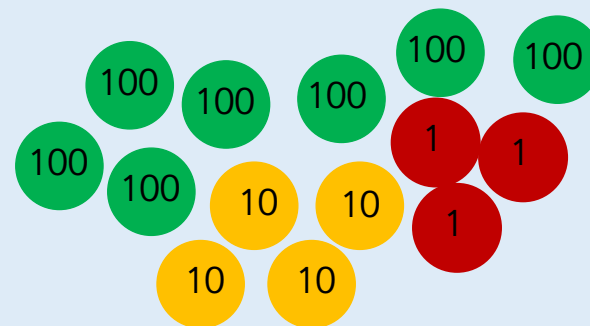


10 more



100 less

643



100 more

## Activity 3

## 1, 10, 100 More or Less

Show ten more and ten less than the following numbers using place value counters.

550

724

302



*What is 10 more than/less than?*

# Activity 3





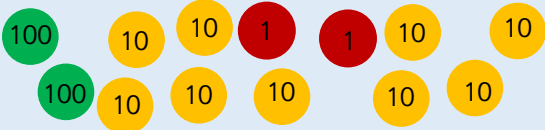
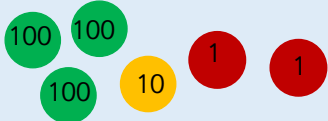
## 1, 10, 100 More or Less

Show ten more and ten less than the following numbers using place value counters.

550

724

302

Number	10 less	10 more
550		
724		
302		

## Activity 3

## 1, 10, 100 More or Less

Show ten more and ten less than the following numbers using place value counters.

273

681

750

# Activity 3

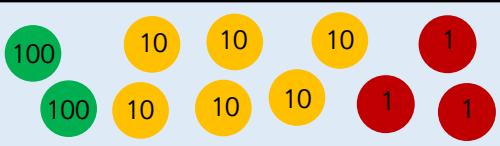
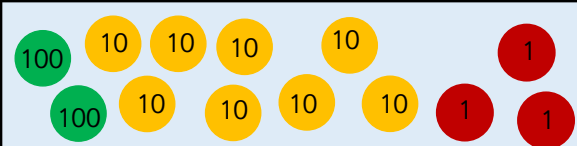
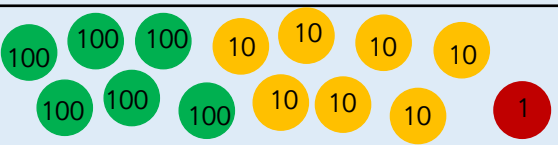

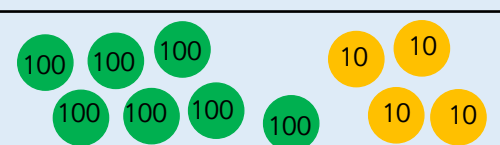
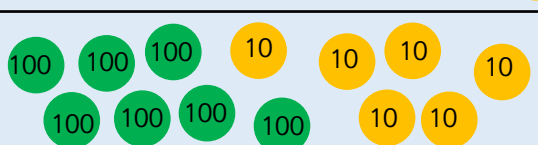
## 1, 10, 100 More or Less

Show ten more and ten less than the following numbers using place value counters.

273

681

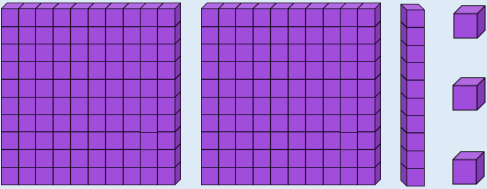
750

Number	10 less	10 more
273		
681		
750		

# Activity 4

## 1, 10, 100 More or Less

Complete the table.

100 less	Number	100 more
		
	<div>100</div> <div>1</div>	

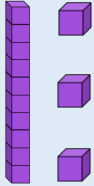
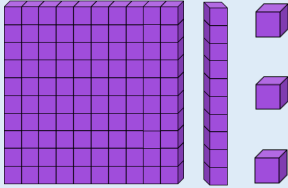
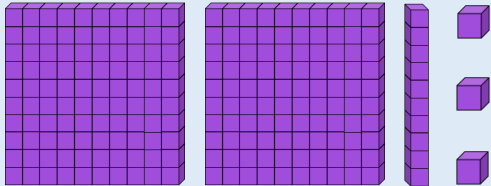


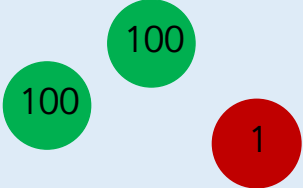


*What is 100 more than/less than?*

# Activity 4

## 1, 10, 100 More or Less

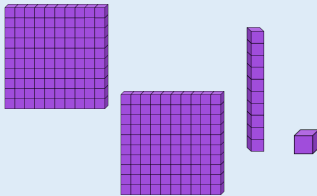
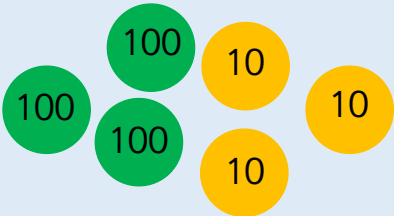
Complete the table.

100 less	Number	100 more
		
		

# Activity 4

## 1, 10, 100 More or Less

Complete the table.

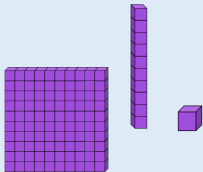
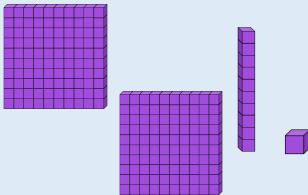
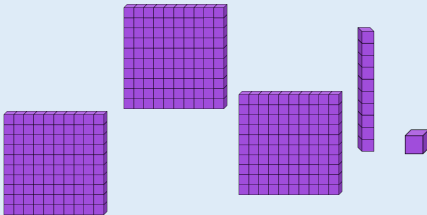
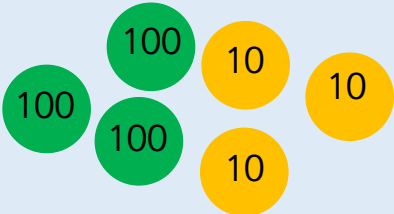
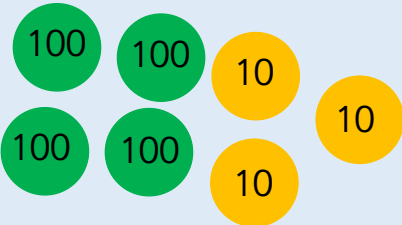
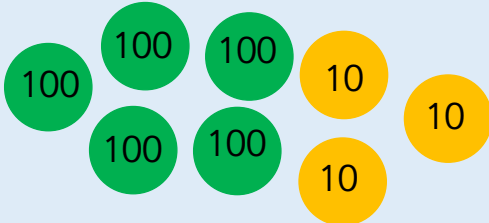
100 less	Number	100 more
		
		



# Activity 4

## 1, 10, 100 More or Less

Complete the table.

100 less	Number	100 more
		
		

10 more than my number is the same as  
100 less than 300.



What is my number?

Explain how you know.

Write your own problem similar  
to describe the original number.

10 more than my number is the same as  
100 less than 300.



The number described is 190  
because 100 less than 300 is  
200, which means 200 is 10  
more than the original number.

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

My answer is 261.

What number did I start with?

Explain how you know.

What can you do to check?



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

My answer is 261.

The start number was 350 because one less than 261 is 260, one hundred more than 260 is 360 and ten less than 360 is 350.

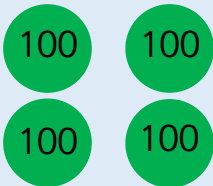

To check I can follow the steps back to get 261.



## Reasoning - 3

## 1, 10, 100 More or Less

A counter has dropped off of the place value chart.

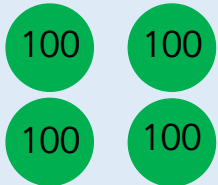

Hundreds	Tens	Ones
		

What number could it have been?

## Reasoning - 3

## 1, 10, 100 More or Less

A counter has dropped off of the place value chart.

Hundreds	Tens	Ones
		

Possible answers:

501

411

402

What is 10 more than/less than?

What is 100 more than/less than?

Which column changes?

What happens when I subtract 10 from 209?



# Compare Objects

# 3



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## Activity 1

## Compare Objects

Represent and compare the numbers using place value counters.

100s	10s	1s

452

542

\_\_\_\_\_ is greater than \_\_\_\_\_

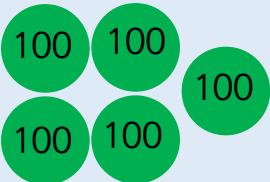
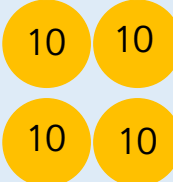


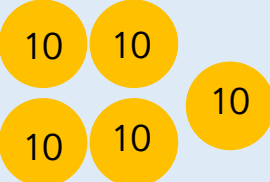
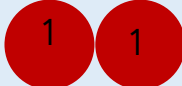


*How do you know which number is greater?*

# Activity 1

## Compare Objects

Represent and compare the numbers using place value counters.

	100s	10s	1s
542			
452			

542 is greater than 452

## Activity 1

## Compare Objects

Represent and compare the numbers using place value counters.

100s	10s	1s

320   450

\_\_\_\_\_ is greater than \_\_\_\_\_

# Activity 1

## Compare Objects

Represent and compare the numbers using place value counters.

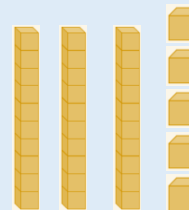
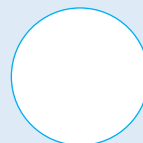
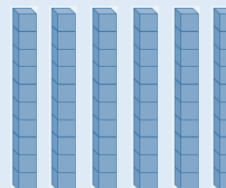
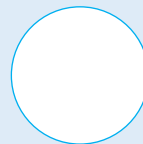
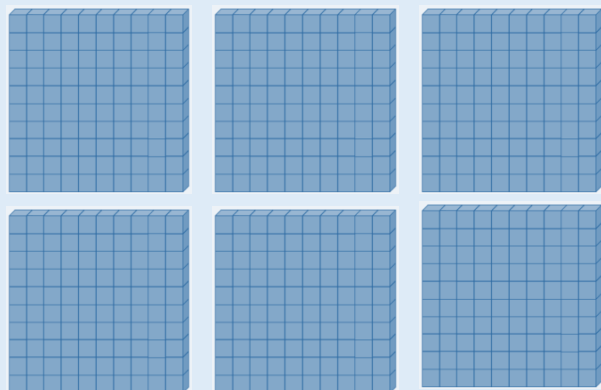
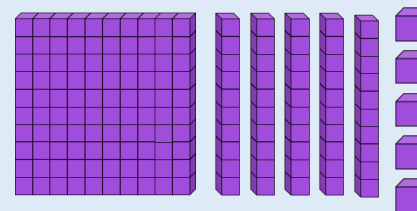
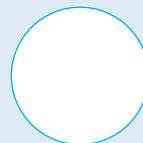
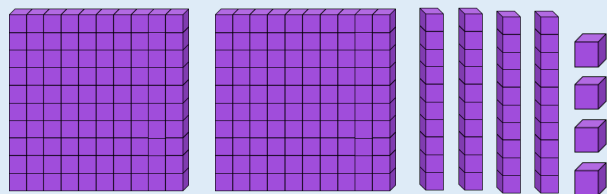
	100s	10s	1s
450			
320			

450 is greater than 320

# Activity 2

## Compare Objects

Use  $<$ ,  $>$  or  $=$  to make the statements correct.

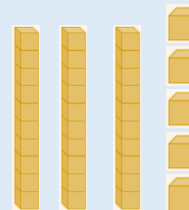
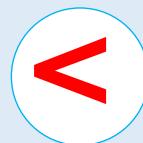
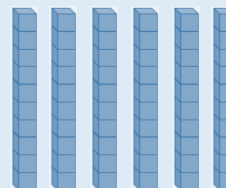
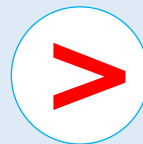
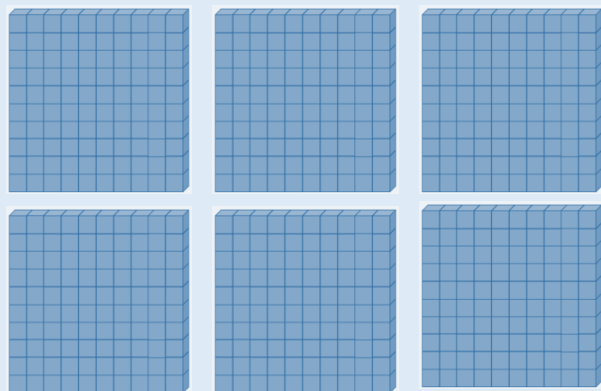
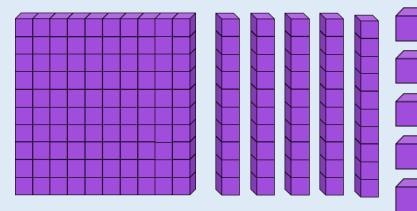
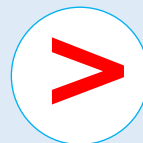
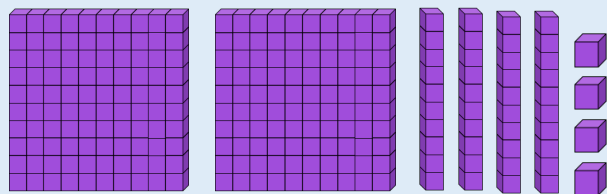


*What strategy do you use to compare the two numbers?*

## Activity 2

## Compare Objects

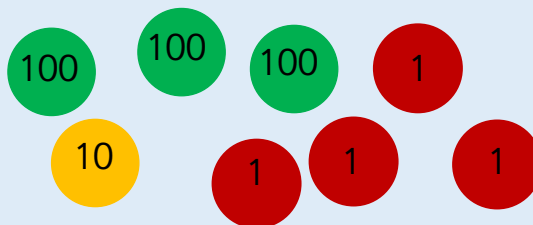
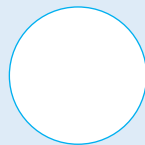
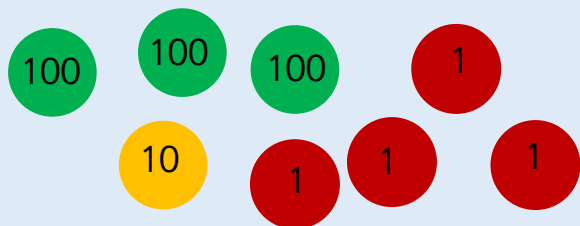
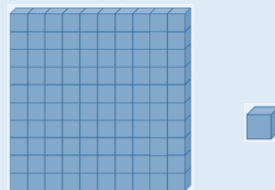
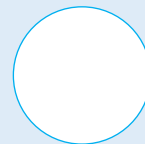
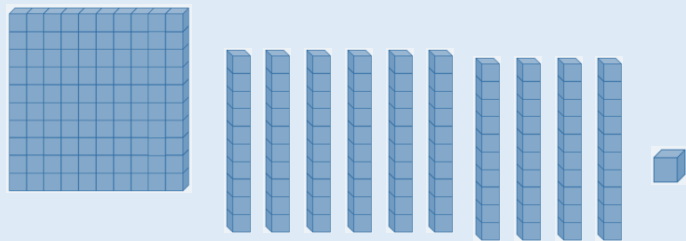
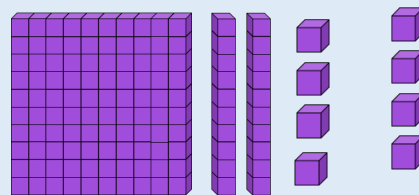
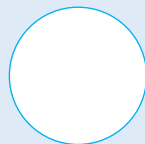
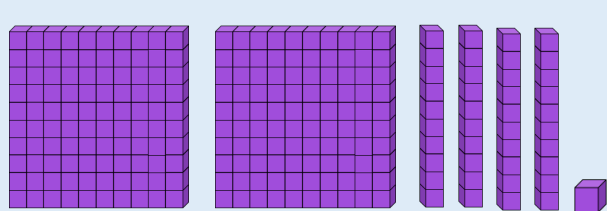
Use  $<$ ,  $>$  or  $=$  to make the statements correct.



# Activity 2

## Compare Objects

Use  $<$ ,  $>$  or  $=$  to make the statements correct.

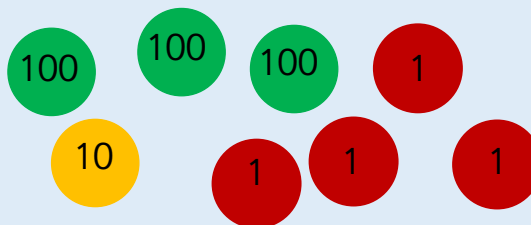
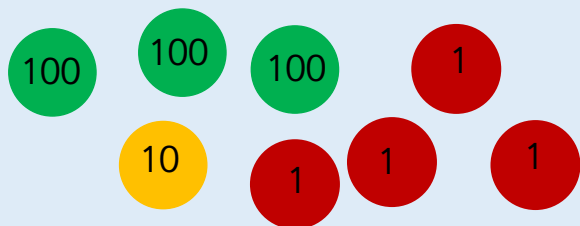
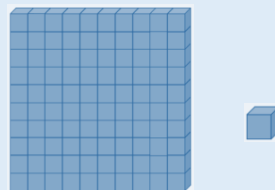
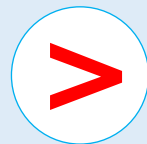
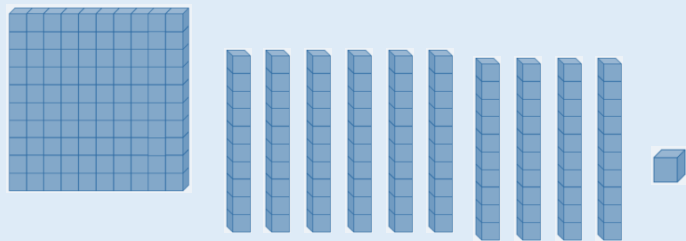
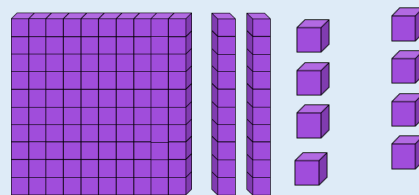
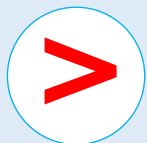
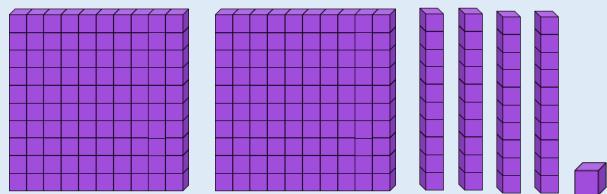




# Activity 2

## Compare Objects

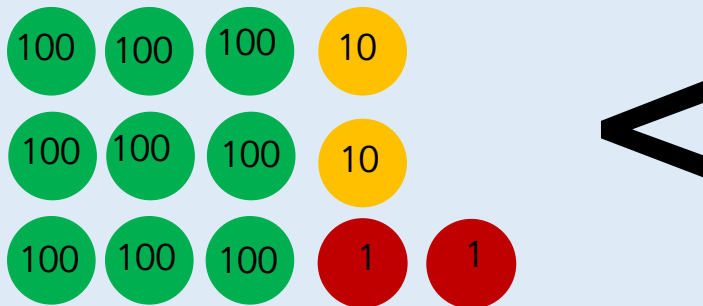
Use  $<$ ,  $>$  or  $=$  to make the statements correct.



## Activity 3

## Compare Objects

Draw objects to make the statement true.

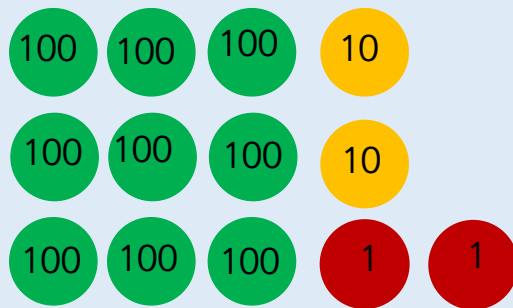


*Is there only one answer?*

## Activity 3

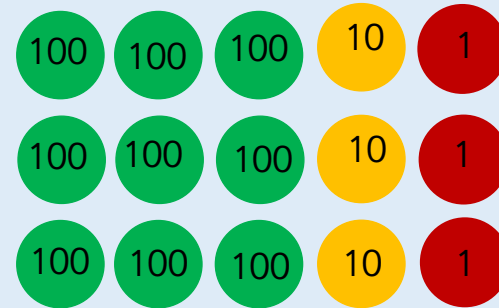
## Compare Objects

Draw objects to make the statement true.



<

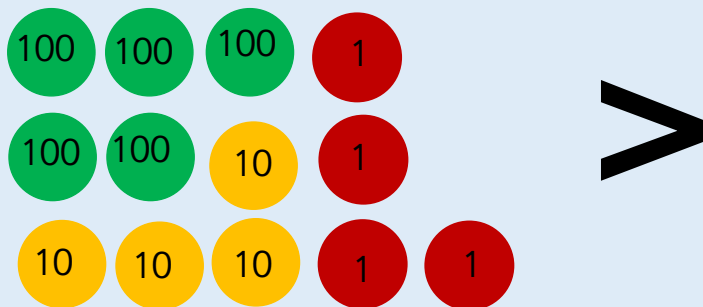
Example



## Activity 3

## Compare Objects

Draw objects to make the statement true.

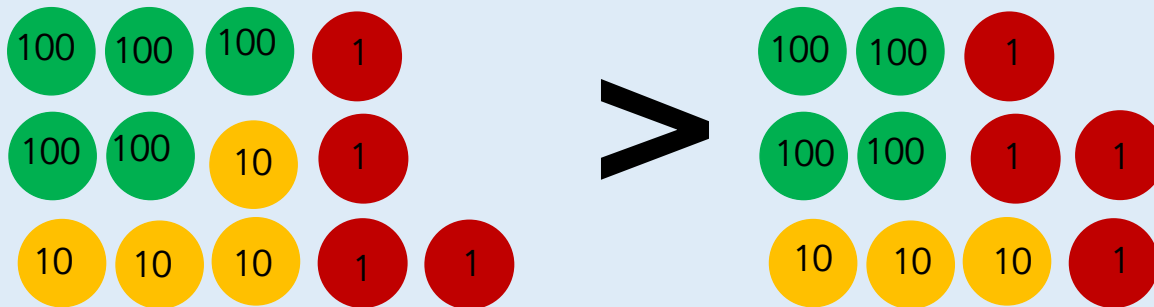


## Activity 3

## Compare Objects

Draw objects to make the statement true.

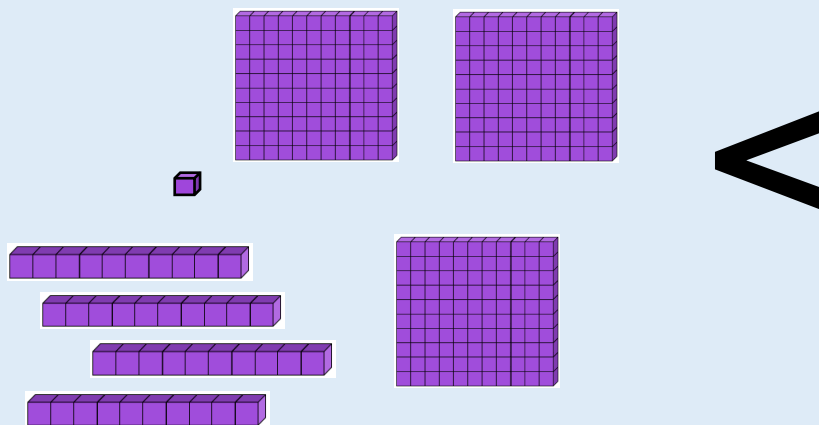
Example



## Activity 3

## Compare Objects

Draw objects to make the statement true.

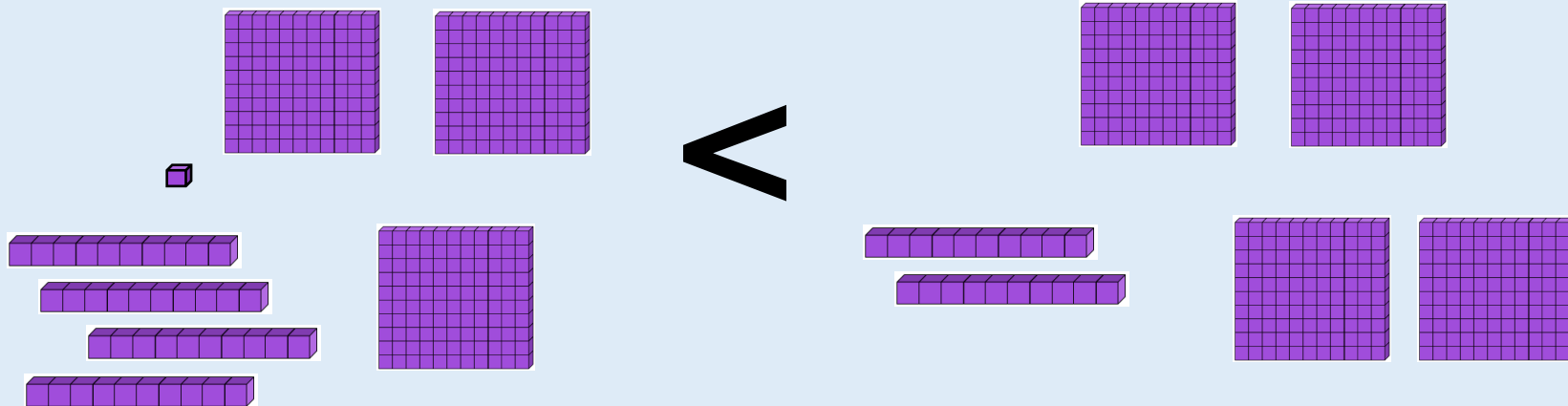


## Activity 3

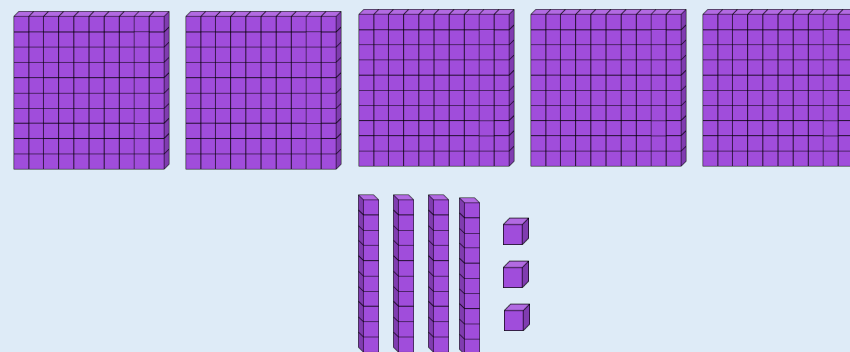
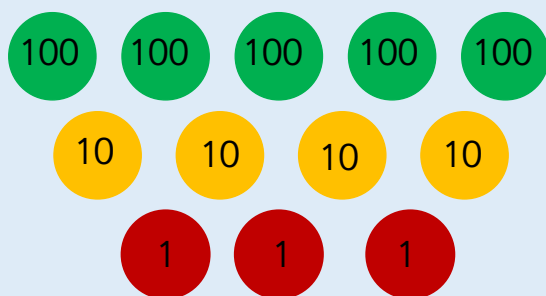
## Compare Objects

Draw objects to make the statement true.

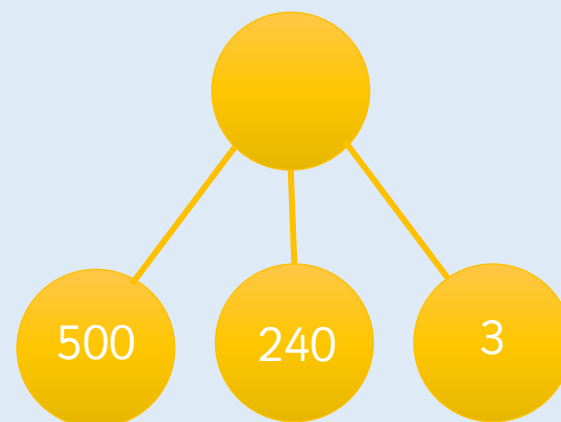
Example



Which image is the odd one out?

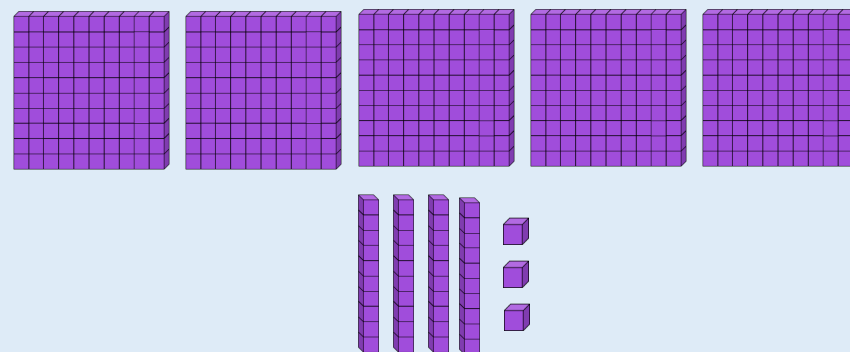
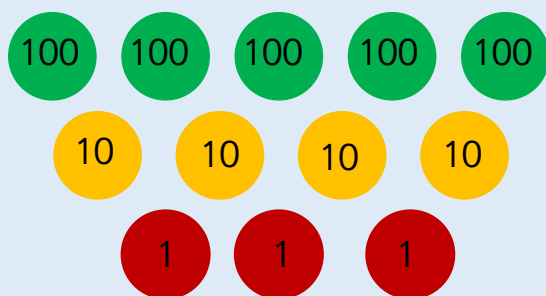


539	540	541	542	543	544
-----	-----	-----	-----	-----	-----



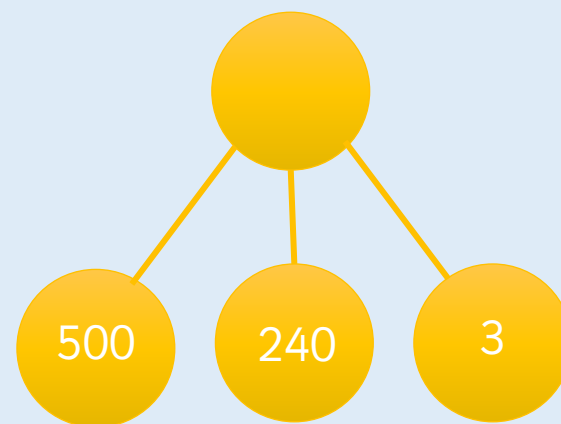


Which image is the odd one out?

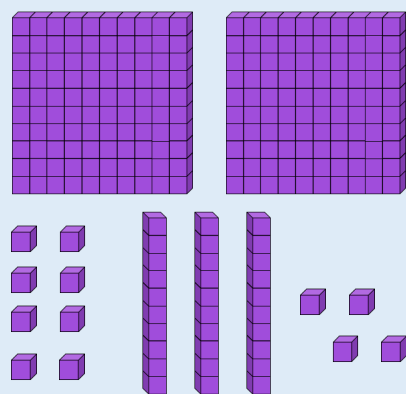


539	540	541	542	543	544
-----	-----	-----	-----	-----	-----

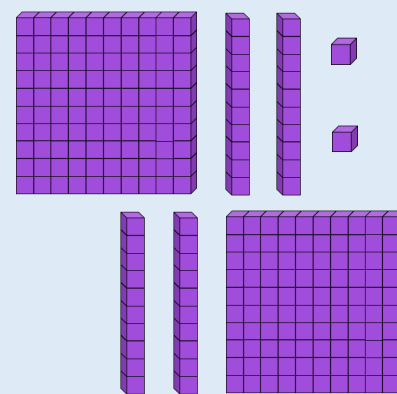
The part-whole model is the odd one out because it shows 743 whereas all other images show 543.



True or False?

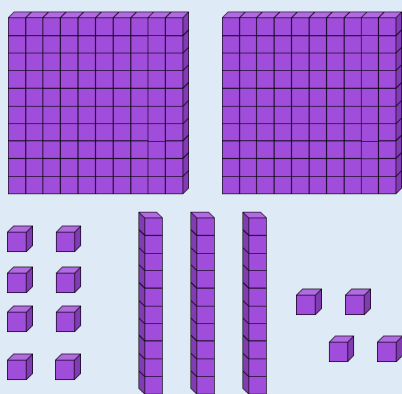


>

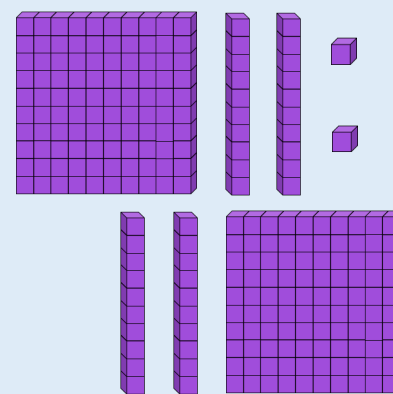


Explain your answer.  
If it is false, how could you correct it?

## True or False?



&gt;



False, because the number 242 is represented on both sides of the inequality symbol. An equal sign should have been used.  
To make it correct, you could add something to the number on the left or take something away from the number on the right.

How do you know which number is greater?

Do you start counting hundreds, tens or ones first? Why?

What strategy did you use to compare the two numbers?  
Is this the same or different to your partner?

Are the Base 10 and place value counters showing the same amount? How do you know?

Is there only one answer?

# Compare Numbers

# 3



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## Activity 1

# Compare Numbers

Circle the greatest number in each pair.

Nine hundred and two

920

500 and 63

568

7 hundreds and 6 ones

76 tens



*How do you know which number is the greatest?*

## Activity 1

## Compare Numbers

Circle the greatest number in each pair.

Nine hundred and two

920

500 and 63

568

7 hundreds and 6 ones

76 tens

## Activity 1

## Compare Numbers

Circle the greatest number in each pair.

Nine hundred and five

950

$400 + 25$

452

6 hundreds and 7 ones

67

44 tens

450



## Activity 1

## Compare Numbers

Circle the greatest number in each pair.

Nine hundred and five

950

$400 + 25$

452

6 hundreds and 7 ones

67

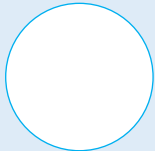
44 tens

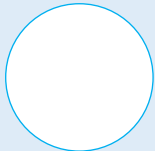
450

## Activity 2

## Compare Numbers

Use  $<$ ,  $>$  or  $=$  to make statements correct.

399  501

800  80 tens



*What strategy did you use to compare the numbers?*

## Activity 2

## Compare Numbers

Use  $<$ ,  $>$  or  $=$  to make statements correct.

$$399 \quad < \quad 501$$

$$800 \quad = \quad 80 \text{ tens}$$

## Activity 2

## Compare Numbers

Use  $<$ ,  $>$  or  $=$  to make statements correct.

$$567 \quad \bigcirc \quad 765$$

$$362 \quad \bigcirc \quad 623$$

$$780 \quad \bigcirc \quad 700 + 30$$

## Activity 2

## Compare Numbers

Use  $<$ ,  $>$  or  $=$  to make statements correct.

$$567 \quad < \quad 765$$

$$362 \quad < \quad 623$$

$$780 \quad > \quad 700 + 30$$

## Activity 3

### Compare Numbers

## Complete the statements.

$$600 + 70 + 4 > 600 + \underline{\hspace{2cm}} + 4$$

Two hundred and five < \_\_\_\_\_



*Can you find more than one way to complete the statements?*

## Activity 3

## Compare Numbers

Complete the statements.

$$600 + 70 + 4 > 600 + \underline{50} + 4$$

Two hundred and five < Three hundred

There are other different possibilities.

## Activity 3 Compare Numbers

## Complete the statements.

$$300 + 20 + 4 > 300 + \underline{\hspace{2cm}} + 4$$

$$100 + 60 + 7 < \underline{\hspace{2cm}} + 60 + 7$$

Two hundred and seven > \_\_\_\_\_

eight hundred and thirty-five < \_\_\_\_\_



## Activity 3

## Compare Numbers

Complete the statements.

$$300 + 20 + 4 > 300 + \underline{10} + 4$$

$$100 + 60 + 7 < \underline{200} + 60 + 7$$

Two hundred and seven > Two hundred and five

eight hundred and thirty-five < Eight hundred and forty

There are other different possibilities.



Leanna has 3 jars of sweets.

A



Jar A contains 230 sweets.

B



C



Jar C contains 165 sweets.



Leanna

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.



Leanna has 3 jars of sweets.

A



Jar A contains 230 sweets.

B



C



Jar C contains 165 sweets.



Leanna

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

Jar B could contain any  
number of sweets between 166  
and 229 inclusive.

I am thinking of a number.  
It is between 200 and 400.  
The digits add up to 13.  
The difference between the  
greatest digit and the  
smallest digit is 3.

What could my number be?

Is there only one option?

Explain each step of your working out.



I am thinking of a number.  
It is between 200 and 400.  
The digits add up to 13.  
The difference between the  
greatest digit and the  
smallest digit is 3.

346 or 364

The only possibilities to go in the hundreds column are 2 or 3. If it was 2, the other two digits would have to total 11 and none of these pairs give the correct difference between the greatest and smallest digits, so the number has to have 3 in the hundreds column.



What strategy did you use to compare the numbers?

How do you know which number is the greatest?

Which column do you start comparing from? Why?

Can you find more than one way to complete the statements?

# Order Numbers

# 3



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## Activity 1

## Order Numbers

Here are three digit cards.  
What is the greatest number you can make?  
What is the smallest number you can make?

3

4

5



*How do you know you have created the greatest/smallest?*



## Activity 1

## Order Numbers

Here are three digit cards.  
What is the greatest number you can make?  
What is the smallest number you can make?



Greatest number: 543

Smallest number: 345

## Activity 1

## Order Numbers

Here are three digit cards.  
What is the greatest number you can make?  
What is the smallest number you can make?

2

4

3

## Activity 1

## Order Numbers

Here are three digit cards.  
What is the greatest number you can make?  
What is the smallest number you can make?



Greatest number: 432

Smallest number: 234

## Activity 1

## Order Numbers

Here are three digit cards.  
What is the greatest number you can make?  
What is the smallest number you can make?



## Activity 1

## Order Numbers

Here are three digit cards.  
What is the greatest number you can make?  
What is the smallest number you can make?



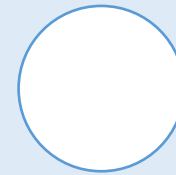
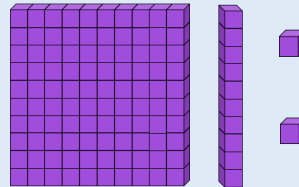
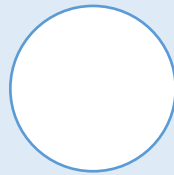
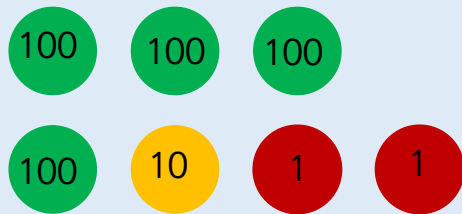
Greatest number: 761

Smallest number: 167

## Activity 1

## Order Numbers

Use the symbols  $<$ ,  $>$  or  $=$  to make the statement correct.



102

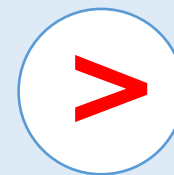
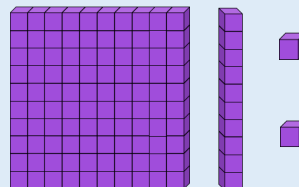
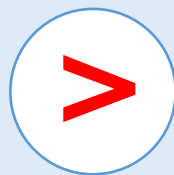
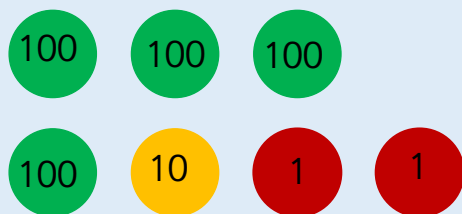


*What number is being represented by the place value counters/Base 10?*

## Activity 1

## Order Numbers

Use the symbols  $<$ ,  $>$  or  $=$  to make the statement correct.

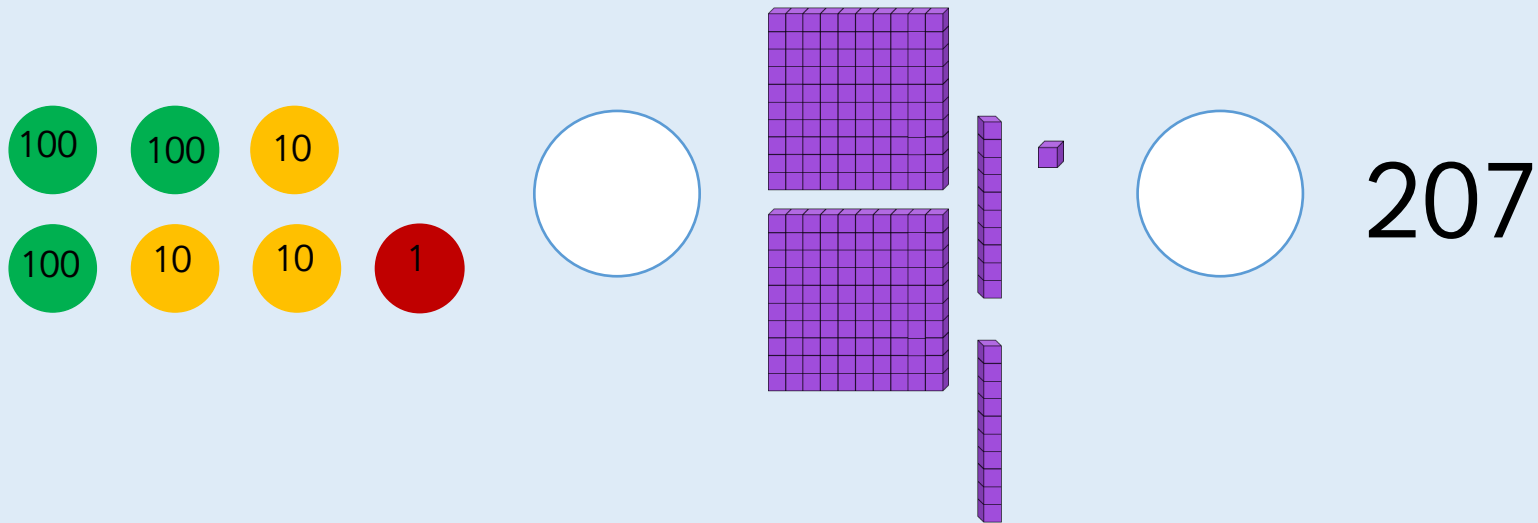


102

# Activity 1

## Order Numbers

Use the symbols  $<$ ,  $>$  or  $=$  to make the statement correct.

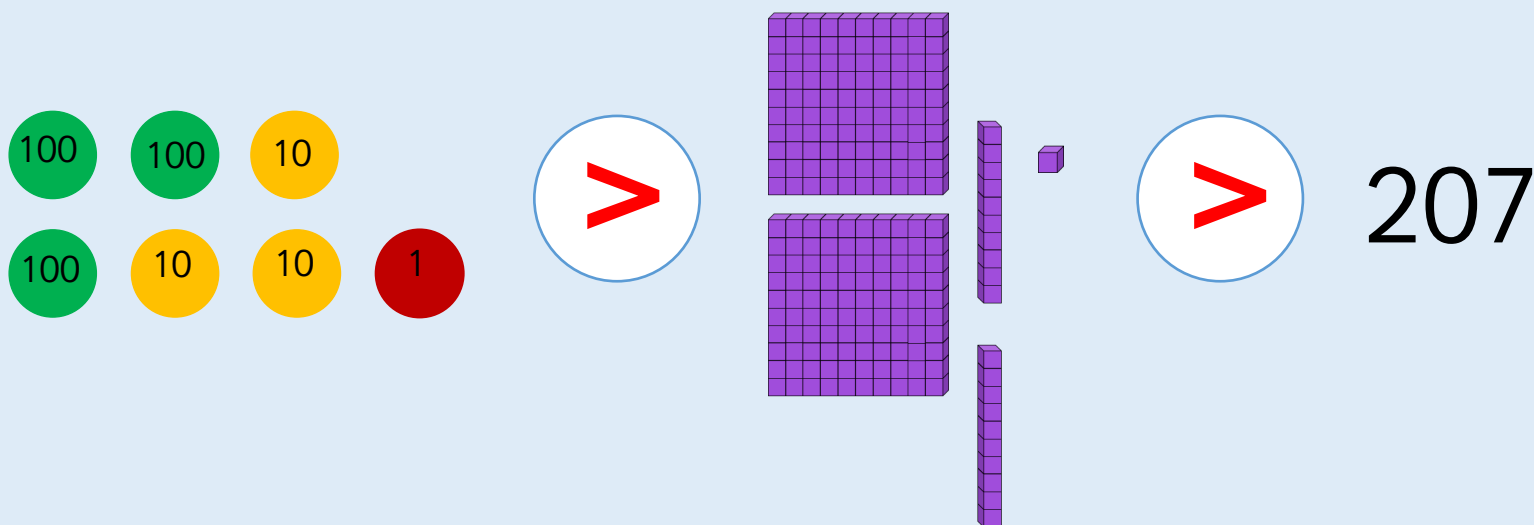




# Activity 1

## Order Numbers

Use the symbols  $<$ ,  $>$  or  $=$  to make the statement correct.



## Activity 2

## Order Numbers

Here is a list of numbers.  
Place the numbers in ascending order.  
Now place them in descending order.  
What do you notice?

312, 321, 123, 132, 213, 231



*What does the word ascending/descending mean?*

## Activity 2

## Order Numbers

Here is a list of numbers.  
Place the numbers in ascending order.  
Now place them in descending order.  
What do you notice?

312, 321, 123, 132, 213, 231

Ascending order:

123, 132, 213, 231, 312, 321

Descending order:

321, 312, 231, 213, 132, 123





Rosie has 7 different numbers.

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

214, 215, , 256, , 289

What could the hidden numbers be?

Explain how you know.



Rosie has 7 different numbers.

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

214, 215, , 256, , 289

The first number could be anything between 216 and 255. The second hidden number could be anything between 257 and 288.

### True or False?



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

## True or False?



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

False. For example, if you are ordering numbers in the hundreds you should start by looking at the hundreds column, but sometimes two numbers will have the same number of hundreds and so you will also need to look at other columns.

How do you know you have created the greatest/smallest number?

What number is being represented by the place value counters/Base 10?

What does the word ascending/descending mean?

Can you find more than one way to order your numbers?



Count  
in 50s

3



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# Activity 1

## Count in 50s

Look at the number patterns. What do you notice?

5	10	15	20	25	30
---	----	----	----	----	----

50	100	150	200	250	300
----	-----	-----	-----	-----	-----



*What is the same and what is different between counting in 5s and counting in 50s?*

## Activity 1

## Count in 50s

Look at the number patterns. What do you notice?

5	10	15	20	25	30
---	----	----	----	----	----

50	100	150	200	250	300
----	-----	-----	-----	-----	-----




Each number is 10 times bigger.  
E.g- 5 and 50, 10 and 100.

## Activity 2

## Count in 50s

Complete the number tracks.



50		150	200			350		450	
----	--	-----	-----	--	--	-----	--	-----	--

	750	700	650			500			350
--	-----	-----	-----	--	--	-----	--	--	-----



 Can you notice a pattern as the numbers increase/decrease?



## Activity 2

## Count in 50s

Complete the number tracks.



50	100	150	200	250	300	350	400	450	500
----	-----	-----	-----	-----	-----	-----	-----	-----	-----

800	750	700	650	600	550	500	450	400	350
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



## Activity 2

## Count in 50s

Complete the number tracks.



0	50	100		200					
---	----	-----	--	-----	--	--	--	--	--

850	800			650	600			450	
-----	-----	--	--	-----	-----	--	--	-----	--



## Activity 2

## Count in 50s

Complete the number tracks.



0	50	100	150	200	250	300	350	400	450
---	----	-----	-----	-----	-----	-----	-----	-----	-----

850	800	750	700	650	600	550	500	450	400
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



## Activity 3

## Count in 50s

Circle and explain the mistake in each sequence.

50, 100, 105, 200, 250, 300 ...

990, 950, 900, 850, 800



*Can you correct the mistakes in each?*





## Activity 3

## Count in 50s

Circle and explain the mistake in each sequence.

50, 100, 105, 200, 250, 300 ...

990, 950, 900, 850, 800



## Odd One Out?

100, 150, 200, 220, 300

Circle the odd one out. Explain how you know.



## Odd One Out?

100, 150, 200, 220, 300

220 is the odd one out because it is not a multiple of 50.  
If we were counting up in 50s from 100, it should have been 250 not 220.



Which is quicker:  
counting to 80 in 10s or counting to 200 in 50s?

Explain your answer.



Which is quicker:  
counting to 80 in 10s or counting to 200 in 50s?

It is quicker to count to 200 in 50s as it would only be 4 steps  
whereas counting to 80 in 10s would be 8 steps.



## Always, Sometimes, Never?

Sort the statements into  
always, sometimes or never true statements.

- 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.



## Always, Sometimes, Never?

Sort the statements into  
always, sometimes or never true statements.

- When counting in 50s starting from 0, the numbers are all even. **Always**
- There are only two digits in a multiple of 50. **Sometimes**
- Only the hundreds and tens column changes when counting in 50s. **Sometimes**



What is the same and what is different between counting in 5s and counting in 50s?

Hence, what is the connection between the 5 times table and 50 times table?

Can you notice a pattern as the numbers increase/decrease?