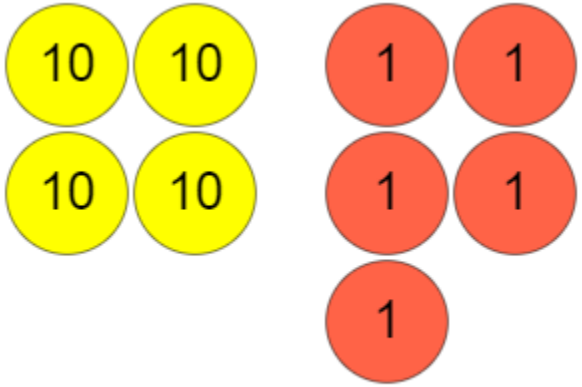
Monday
Place Value

https://www.youtube.com/watch?v=a4FXl4zb3E4

To really understand numbers we need to understand place value.

Take the number 45



There are 4 tens in 45
4 x 10 = 40

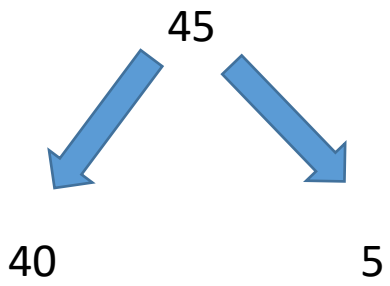
I can see I have 5 ones in 45.
5 x 1 = 5

40 + 5 = 45

We can show this in a place value chart like this.

Tens	Ones
4	5

So to partition and understand the number 45 we know that we need to understand that…



On your WB's partition the following numbers:

28

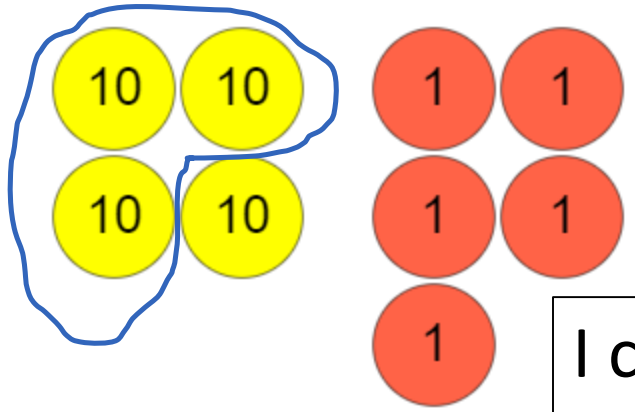
63

75

17

We can challenge ourselves to partition differently.

45



This time I have circled 3 tens
3 x 10 = 30

I can see I have 1 ten left and 5 ones.
10 + 5 = 15

30 + 15 = 45 The same number just a different way of partitioning.

Now see if you can partition these differently.

28

63

75

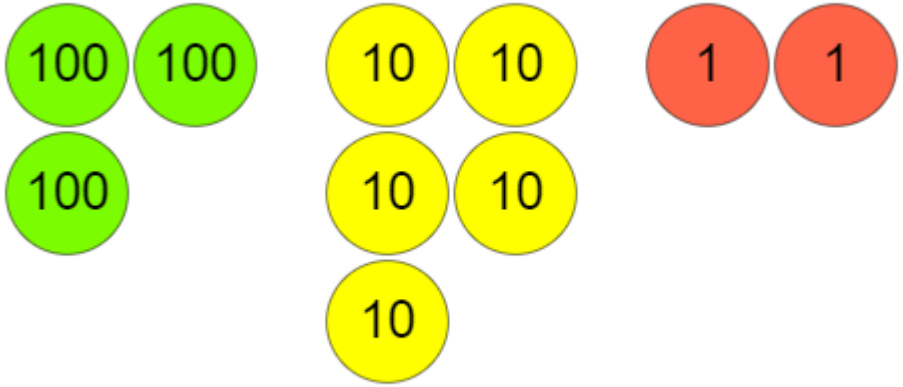
17

Tuesday
Place Value

https://www.youtube.com/watch?v=sepBmoXqYfc

Yesterday we looked at 2 digit numbers. Today we will look at 3 digit numbers.

Take the number 352



There are 3 hundreds in 352

3 x 100 = 300

There are 5 tens in 352

5 x 10 = 50

There are 2 ones in 352.

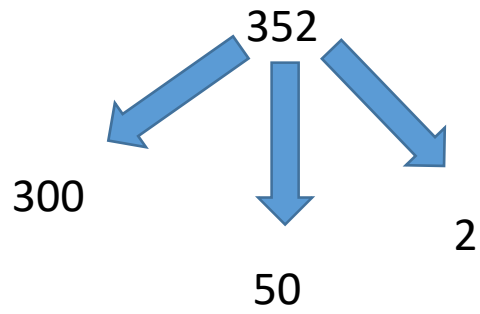
2 x 1 = 2

300 + 50 + 2 = 352

This can be shown in a place value grid like this.

Hundreds	Tens	Ones
3	5	2

So to partition and understand the number 352 we know that …



On your WB's partition the following numbers:

528

631

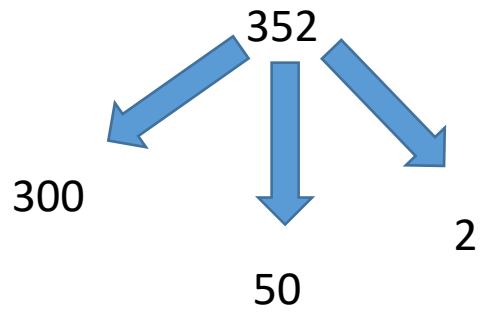
725

117

What happens if I add 1 thousand to this number? Show me on your whiteboard.

Hundreds	Tens	Ones
3	5	2

So to partition and understand the number 352 we know that …



**Demonstrate on FC

On your WB's partition the following numbers:

2413

5964

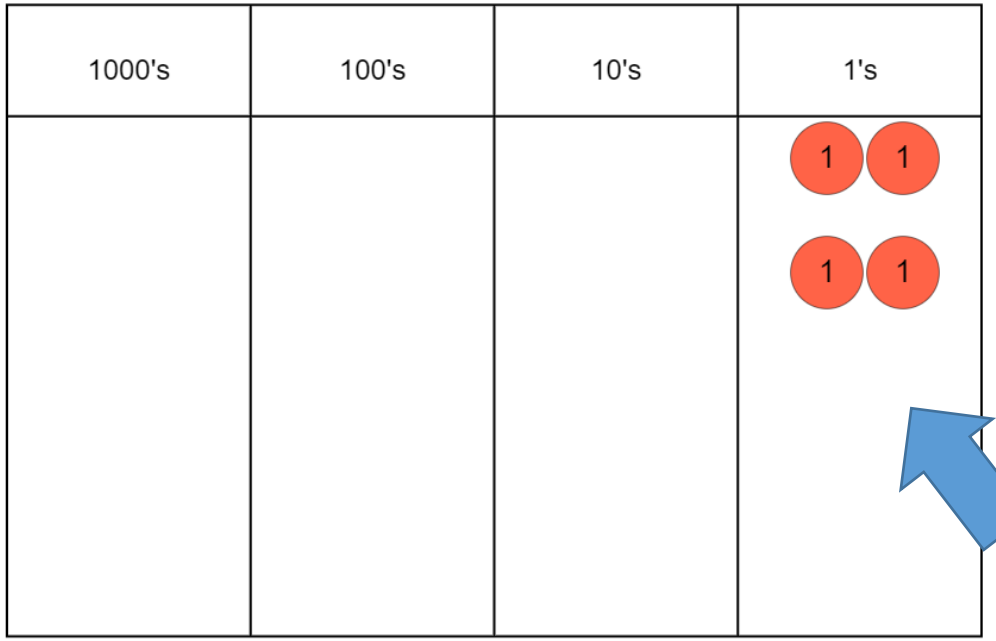
4795

4546

Challenge: 1504

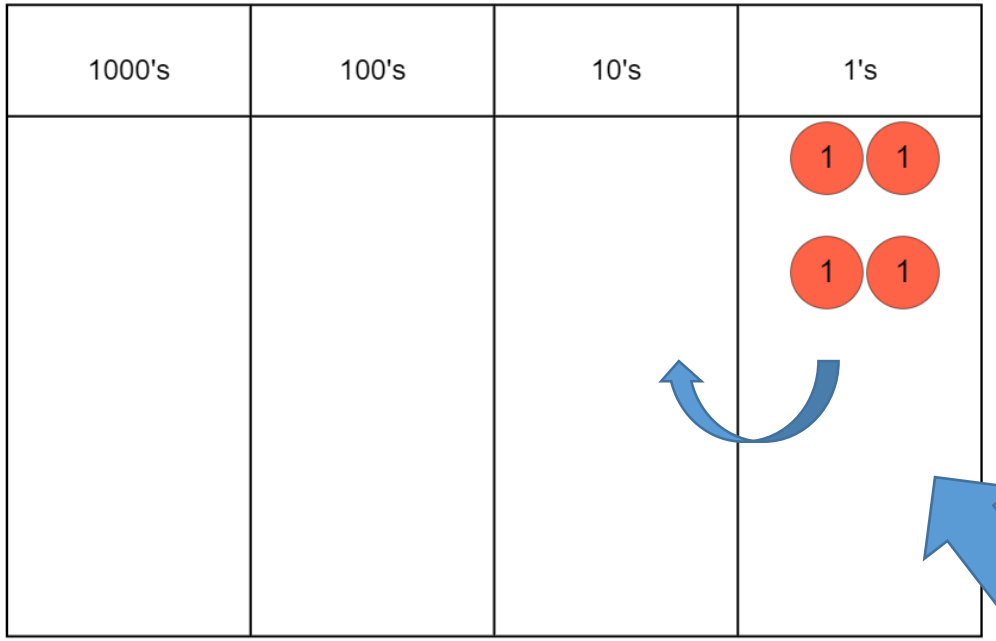
Wednesday
Place Value
Ten times bigger and smaller

We are going to multiply by 10 today.



Here I have the number 4
Because I have 4 ones.

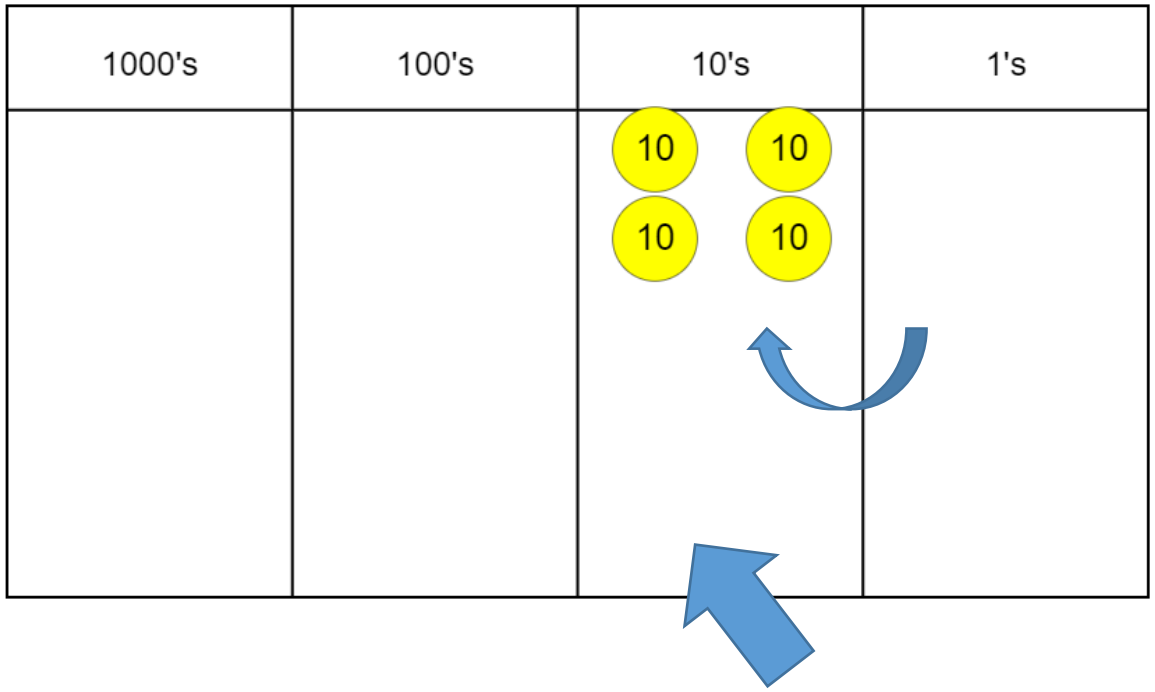
If I want to make it 10 times bigger
I need to multiply it by 10:
4 x 10



When I multiply 4 by 10 I do not just add a zero!

The whole number moves up a place in Value because 4 x10 = 40

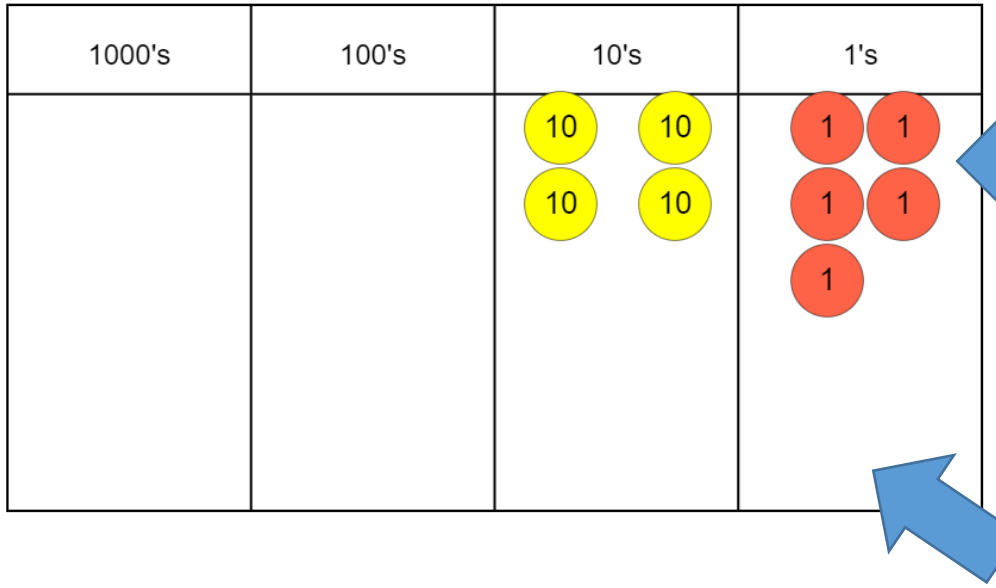
I have now multiplied by 10



My 4 ones are now 10 times bigger and are 4 tens.

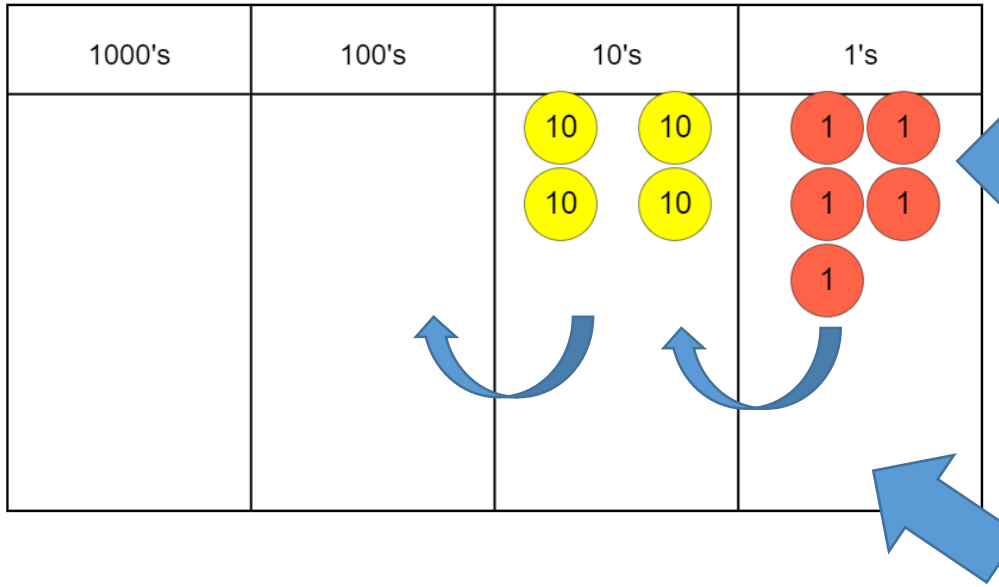
I can't just write the number 4 though as it doesn't show that it is a tens number. I have to use a zero as a place holder to show that my number is 10 times bigger and is now 40 as I have 0 ones.

Now lets try it with a 2 digit number ….



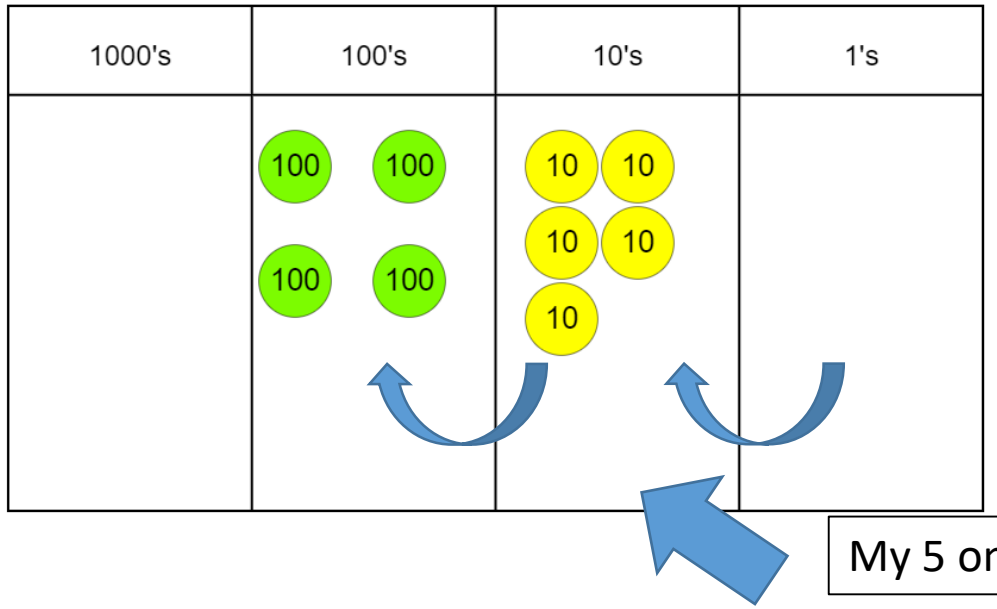
Here I have the number 45
Because I have 4 tens and 5 ones.

If I want to make it 10 times bigger
I need to multiply it by 10:
45 x 10



Again, I multiply 45 by 10 I do not just add a zero!

The whole number moves up a place in value because 45 x10 = 450



My 5 ones are now 10 times bigger and are 5 tens.

My 4 tens are now 10 times bigger and are 4 hundreds.

Again, I can't just write the number 45 though as it doesn't show that it is a hundreds number. I have to use a zero as a place holder to show that my number is 10 times bigger and is now 450 as I have 0 ones.

Now it’s your turn. By drawing a place value chart on your WB show me how you make the following numbers 10 times bigger.

7

16

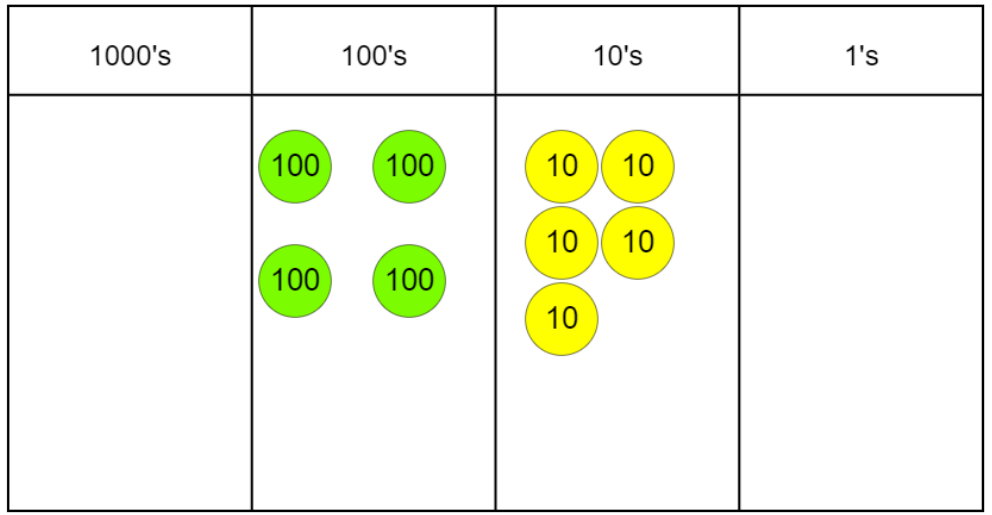
49

63

77

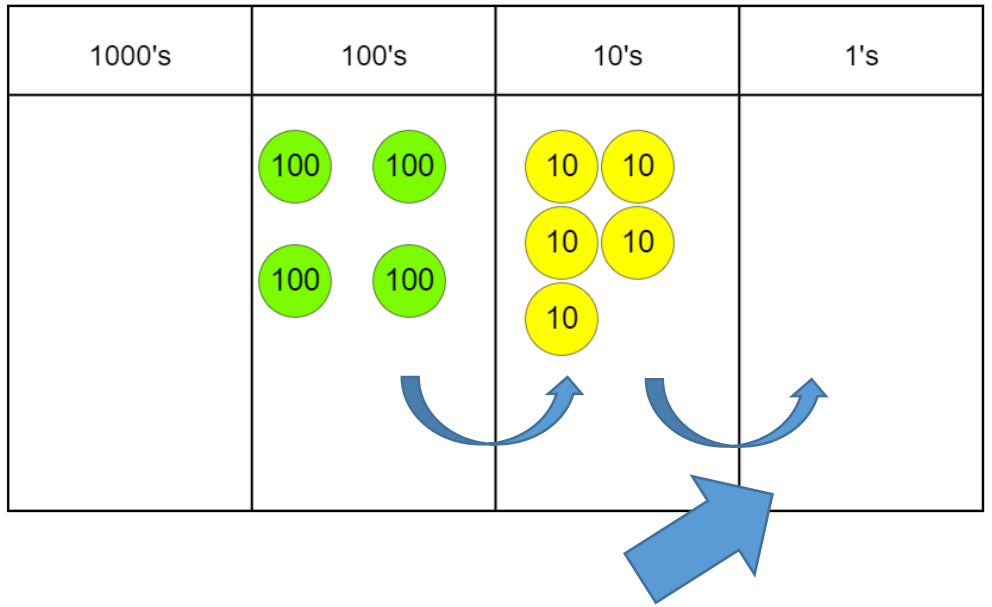
Challenge: 526

So…how would we make 150 ten times smaller?

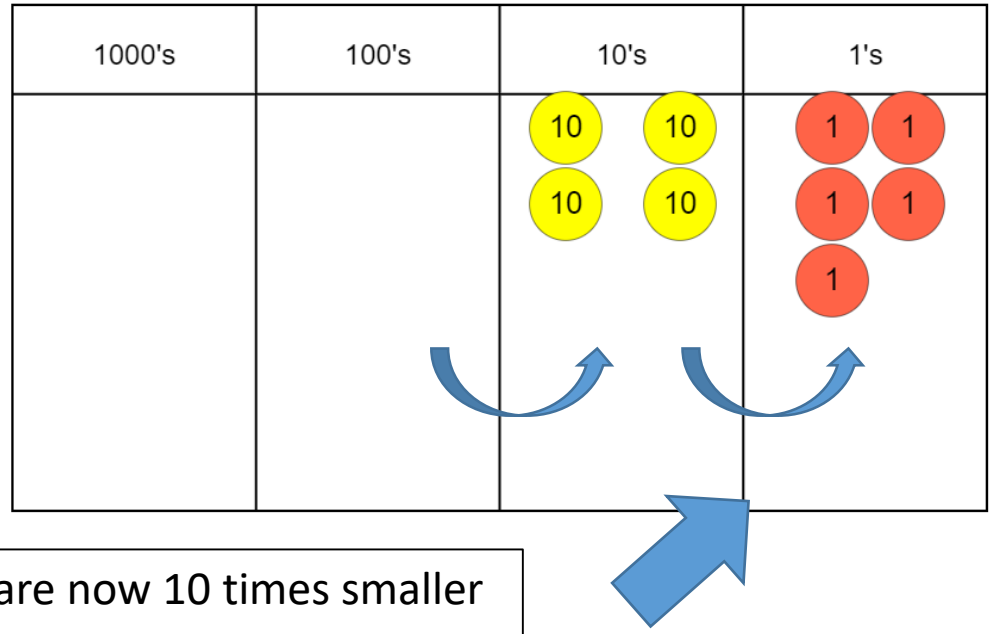


This time I am dividing by 10:

450 ÷ 10



This time everything moves a place value smaller.



My 4 hundreds are now 10 times smaller and are 4 tens.

My 5 tens are now 10 times smaller and are 5 ones.

Now it’s your turn. By drawing a place value chart on your WB show me how you make the following numbers 10 times smaller.

80

220

670

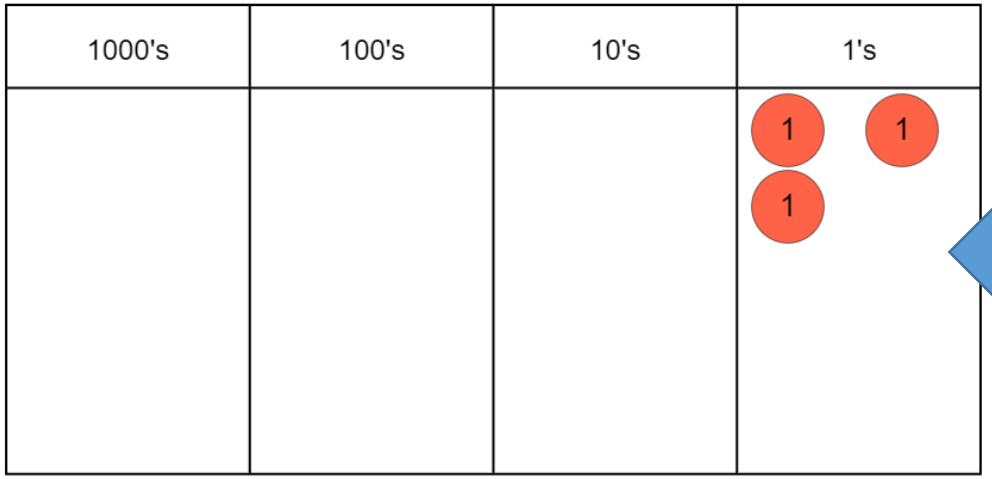
830

920

Challenge: 1780

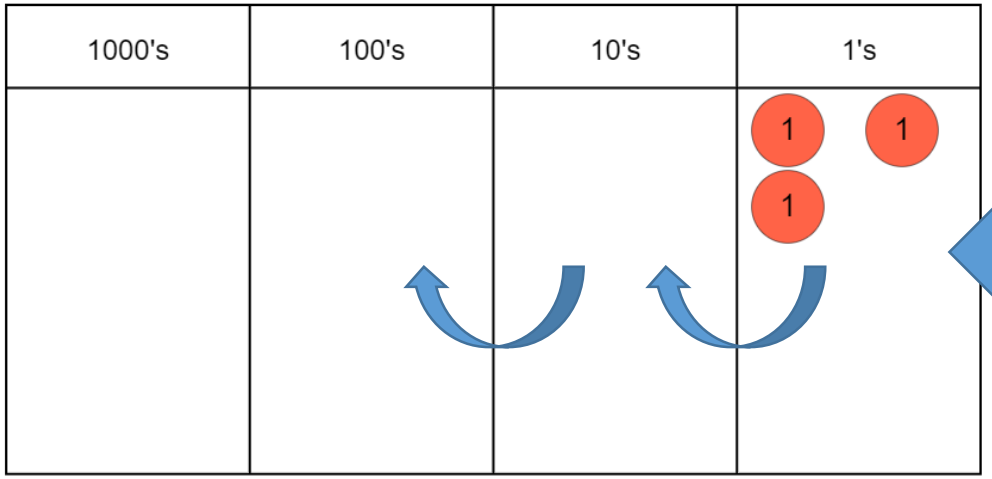
Thursday
Place Value
100 times bigger and smaller

We are going to multiply by 100 today.



Here I have the number 3 because I have 3 ones.

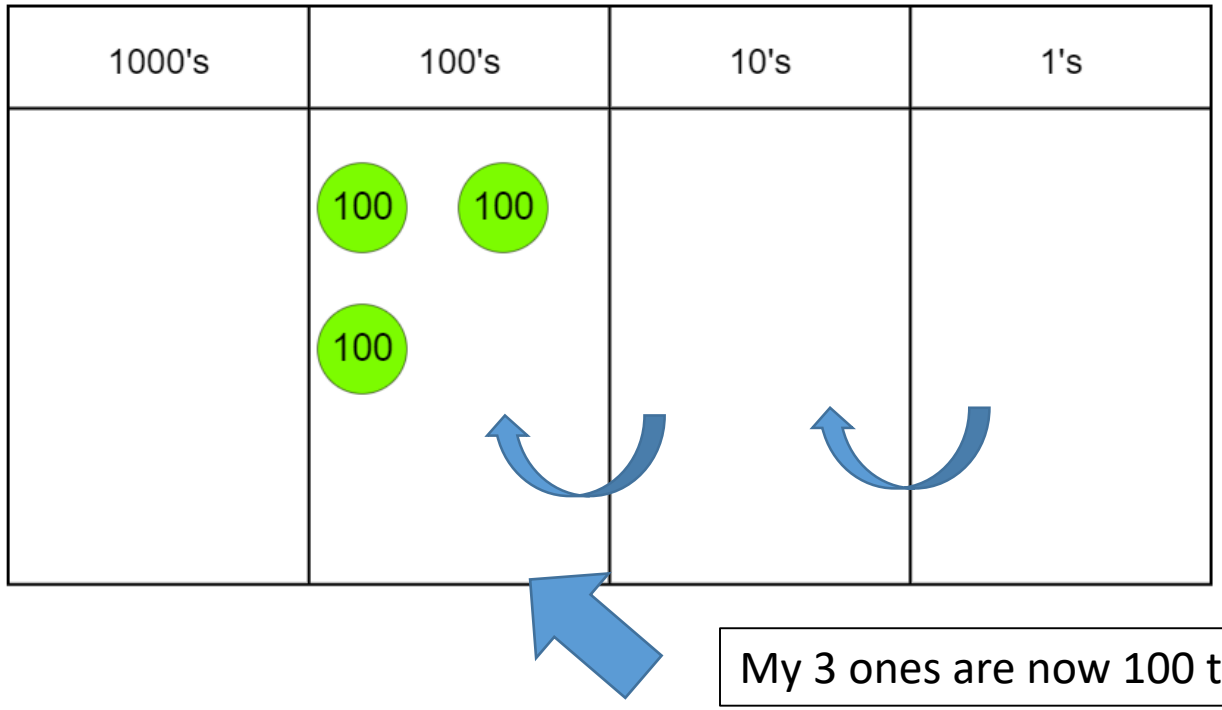
If I want to make it 100 times bigger I need to multiply it by 100:
3 x 100



When I multiply by 100 I do not just add 2 zeros.

The whole number moves up 2 places in value because 3 x100 = 300

Hint – when we multiplied by 10 the number 10 has only 1 zero, so we move 1 place. When we multiply by 100 it has 2 zeros so we moved 2 places.



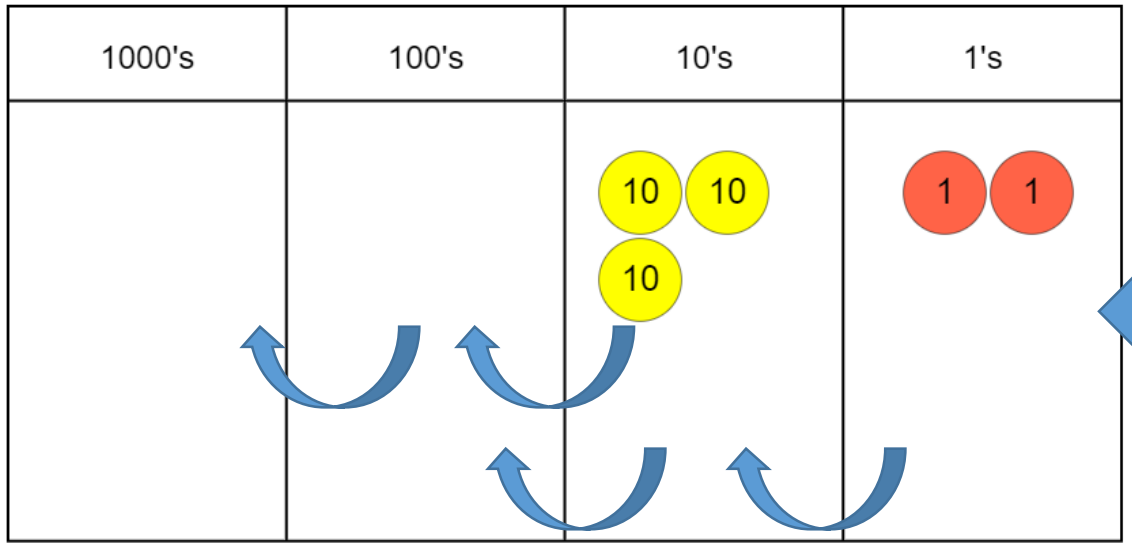
My 3 ones are now 100 times bigger and are 3 hundreds.

I can’t just write the number 3 though as it doesn’t show that it is a hundreds number. I have to use zeros as place holders to show that my number is 100 times bigger and is now 300 as I have 0 ones and 0 tens.

1000's	100's	10's	1's
		10 10 10	1 1

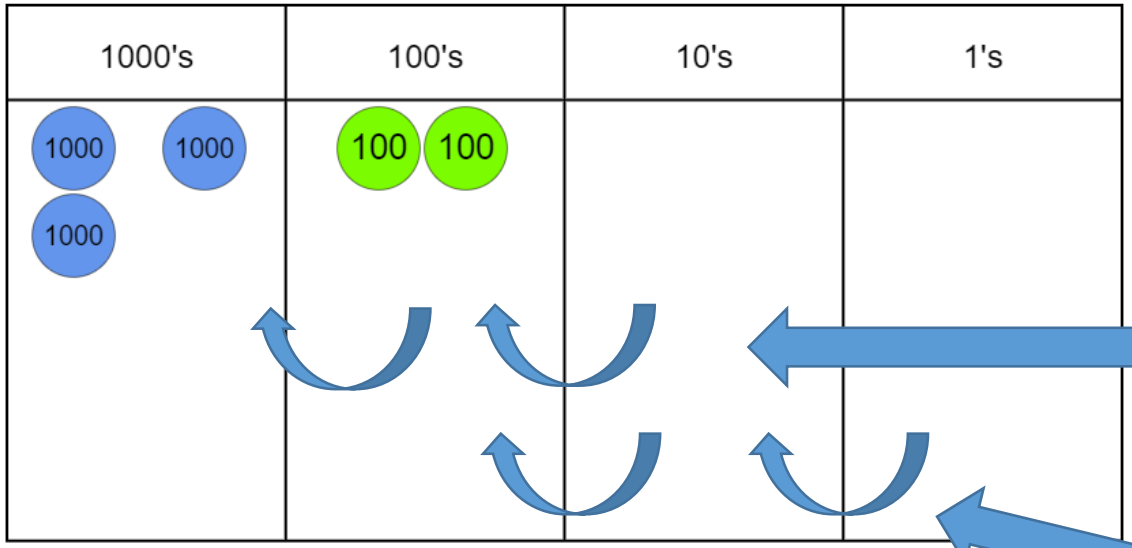
Here I have the number 32
Because I have 3 tens and 2 ones.

If I want to make it 100 times bigger
I need to multiply it by 100:
32 x 100



Again, I multiply 32 by 100. I do not just add 2 zeros!

The whole number moves up 2 places in value because 32 x100 = 3200



My 2 ones have moves 2 places and are now 2 hundreds.

My 3 tens have moves 2 places and are now 3 thousands.

Now it’s your turn. By drawing a place value chart on your WB show me how you make the following numbers 100 times bigger.

5

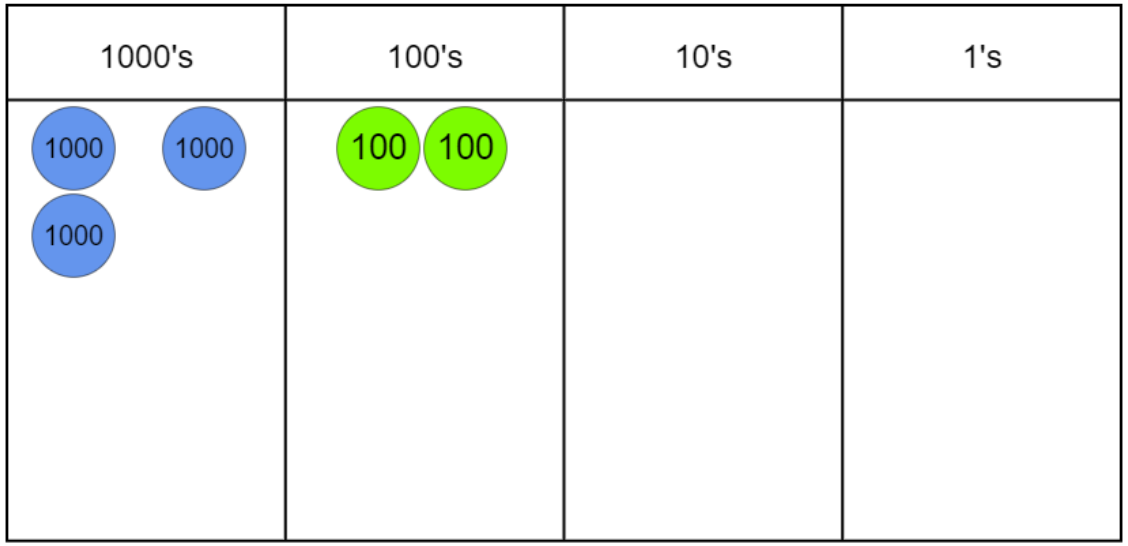
9

52

76

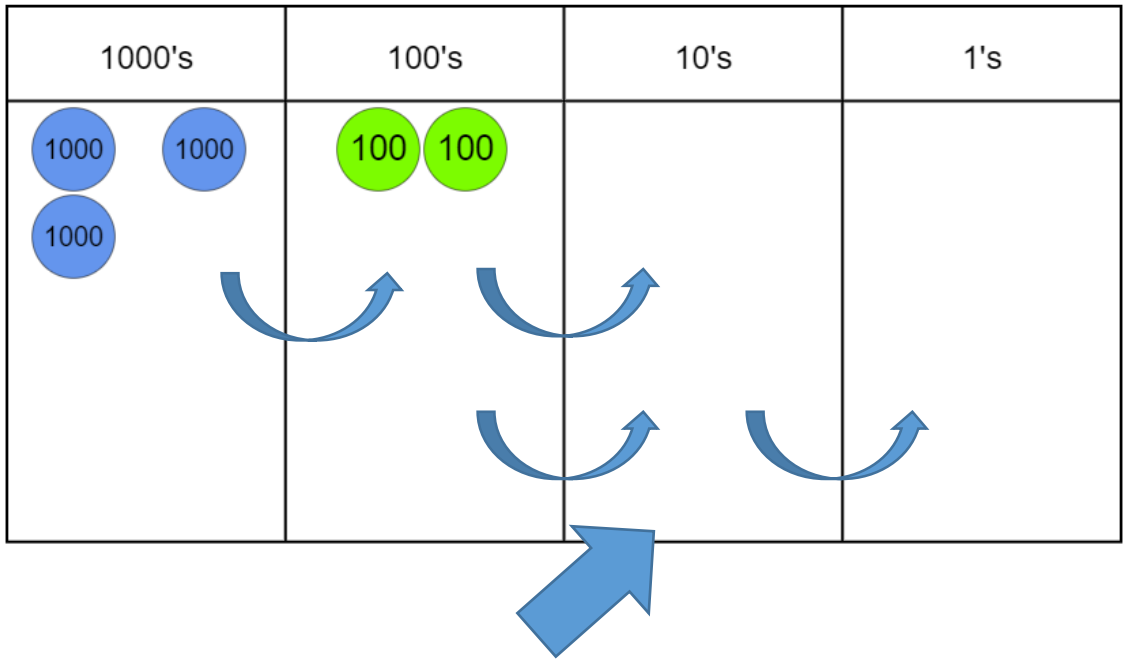
89

So… how would I make 3200 100 times smaller?

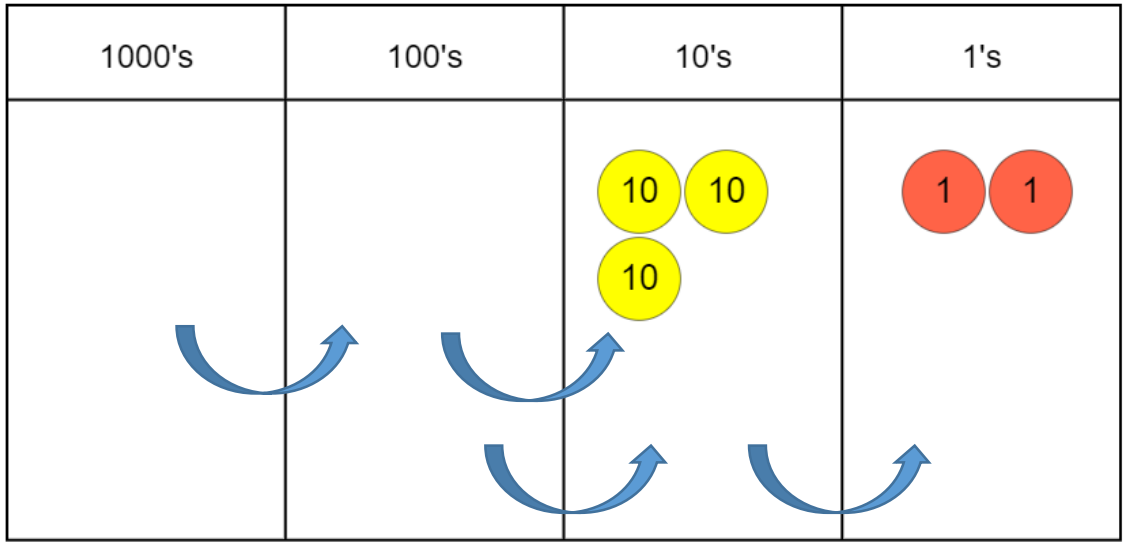


This time I am dividing by 100:

3200 ÷ 100



This time everything moves 2 place values smaller.



My 3 thousands are now 100 times smaller and are 3 tens.

My 2 hundreds are now 100 times smaller and are 2 ones.

Now it’s your turn. By drawing a place value chart on your WB show me how you make the following numbers 100 times smaller.

300

6000

5700

2600

9500