Hello again Year 6,

No snow this weekend! However, I did still manage to go out for a walk - not quite as much fun as playing in the snow.

I hope you are all well.

This week we are going to be looking at multiplying and dividing decimals.

Remember - if you struggle with any of the pieces of work set you can send an email to me via the address KS2parents@epcollier.reading.sch.uk

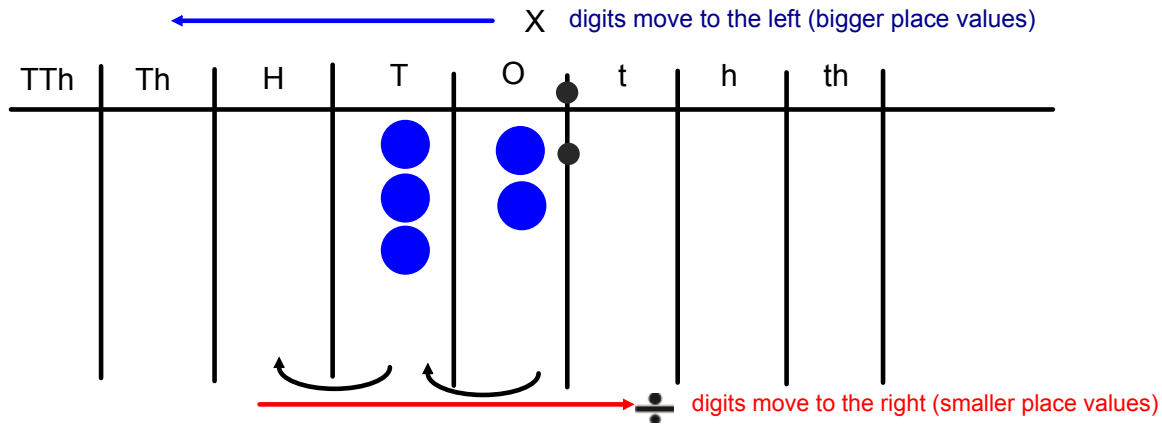
Just put your name and Mrs Yeandle in the subject bar.

Or keep a note, then we can go through things when I see you again in school.

Feb 1-10:10

Multiplying and dividing by 10, 100 and 1000

First of all we are going to look at multiplying and dividing by 10, 100 and 1000. We have done this before, so I hope it will just be a re-cap for you.



so 32 X 10

We make 32 with counters.
X by 10 moves each digit one place value to the left (bigger)

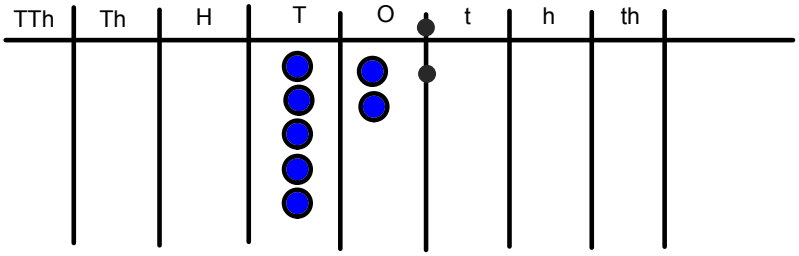
The 3 counters in the tens column will move to the hundreds.

The 2 counters in the ones column will move to the tens.

So, the answer to 32 X 10 = 320

Feb 1-10:21

X digits move to the left (bigger place values)



÷ digits move to the right (smaller place values)

So lets explore what we can do with the number 52...

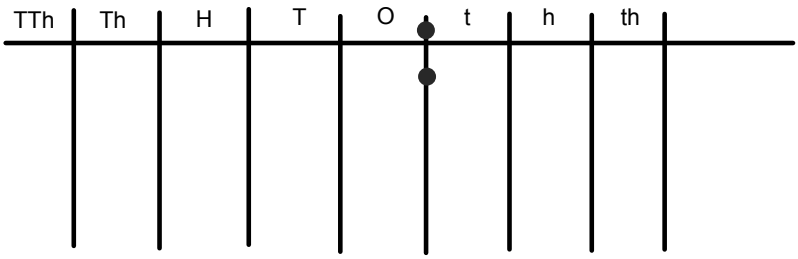
52 X 10 (each digit will move one place value to the left) to make 520.

52 X 100 (each digit will move two place values to the left) to make 5200.

52 ÷ 10 (each digit will move one place value to the right) to make 5.2

Feb 1-10:24

X digits move to the left (bigger place values)



÷ digits move to the right (smaller place values)

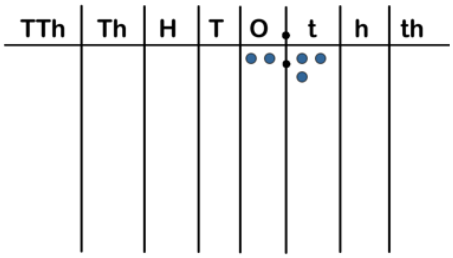
So lets explore what we can do with the number 4.1

Can you write some statements similar to the ones on the previous slide?

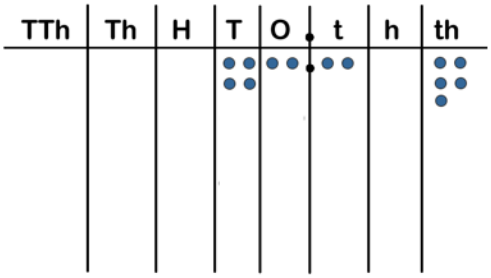
Feb 1-10:32

Which number is represented on this place-value chart?
Show what happens when it is multiplied by 10, 100 or 1,000.

What if you divide by 10 and 100?



Feb 1-10:37



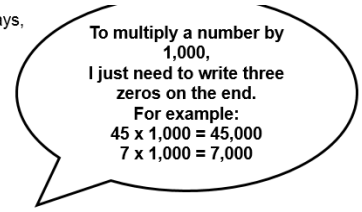
What number is represented?

Show me what happens if you multiply this number by 10, 100 and 1000

Can you show me what will happen if you divide this number by 10?

Feb 1-10:40

Michael says,



Is Michael correct? Explain your answer.

Tip: Think particularly about multiplying and dividing decimals!

Feb 1-10:42

Apply your knowledge of multiplying by 10, 100 and 1,000 to convert these measurements.

Remember

0.375 kg → g — 1000g in 1kg

0.09m → cm — 100cm in 1m

1.45 l → ml — 1000ml in 1l

0.85 cm → mm — 10mm in 1cm

12.63 km → m — 1000m in 1km

Feb 1-10:43

Multiplying decimals by an integer

Use the place value counters to multiply 1.212 by 3
Complete the calculation alongside the concrete representation.

Tens	Ones	Tenths	Hundredths	Thousandths
	1	0.1 0.1	0.01	0.001 0.001
	1	0.1 0.1	0.01	0.001 0.001
	1	0.1 0.1	0.01	0.001 0.001

O. t h th

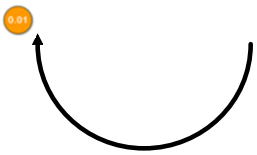
1.212
X 3
· 36

I have started this for you, can you complete it?

Feb 1-10:46

These place-value counters represent a multiplication.
What is it and what is the answer?

Tens	Ones	Tenths	Hundredths	Thousandths
	1	0.1 0.1	0.01 0.01	0.001 0.001 0.001 0.001
	1	0.1 0.1	0.01 0.01	0.001 0.001 0.001 0.001
	1	0.1 0.1	0.01 0.01	0.001 0.001 0.001 0.001

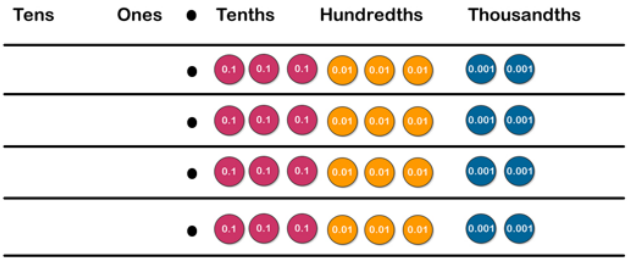


Tip: You need to exchange!

1.224
X 3
2
1

Feb 1-10:47

What multiplication does this show? What is the answer?



Will you need to exchange in this calculation? Where?

Can you also show me using column multiplication?

Feb 1-11:22

Use place-value counters and a grid to work out the answers to these multiplications. *Or column method.*

a) 1.025 x 3

b) 2.132 x 4

Feb 1-11:25

A bottle of banana milkshake contains 1.32 litres.
How many litres are in five bottles?

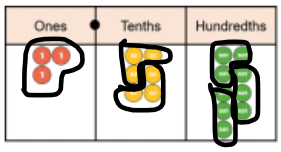
Use place value counters or your column method to work out the answer to this problem.

Feb 1-11:25

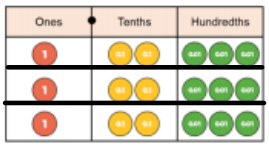
Dividing decimal numbers by an integer

Divide 3.69 by 3

We can choose to group or share to solve this division problem.



1 2 3



Grouping

I am dividing by 3, so I need to group the counters into 3's

Sharing

I share the counters between 3

Each one gets 1.23

Feb 1-11:27

Show me 6.28 divided by 2

You can use the sharing or grouping method from the previous slide.

Feb 1-11:35

Which is the better deal?

BEANS
4 tins
£4.88

PEAS
3 tins
£3.36

Tip: Think about how much one tin of each would be!

Feb 1-11:38

Thank you again Year 6.

As usual - send an email to KS2parents@epcollier.reading.sch.uk

to show me a photograph of your work, to say you have looked it through with an adult or to ask for help if you are stuck.

Put your name and Mrs Yeandle in the subject bar.

I look forward to hearing from you,

Mrs Yeandle

Feb 1-11:43

Feb 1-12:00