Maths- Skills This lesson will be live on teams for your class at; 9am-5L 10am-5H

Learning objective; To revisit multiplying and dividing by 10, 100 1000.

11am-5M

Warm up- Which of these statements are true or false. Can you explain why?

True or False?

There are 13 marbles and two jars, if you share them equally, there will be none left over.

Explain your answer.

True or False?

 5×4 is equal to 4×5

Explain your answer.

True or False?

If you divide a number by 2, the answer is always even.

Explain your answer.

True or False?

Multiplication is the inverse (opposite) of division.

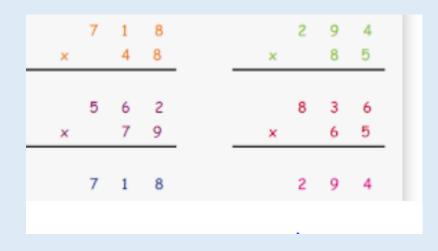
Explain your answer.

To multiply and divide by 10, 100, 100

Do I need to use my column method?

Or

Should I use my place value knowledge?

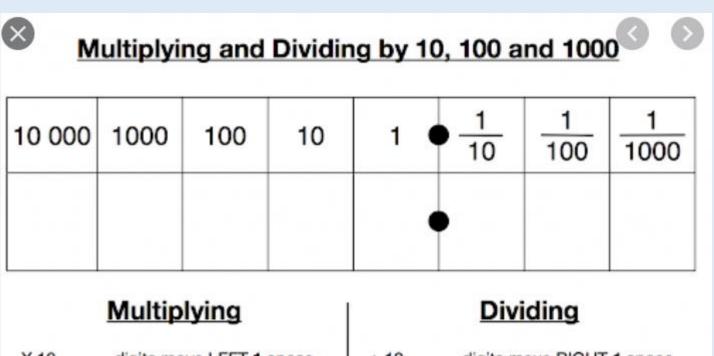


M.	HTH	TTH	TH	н	Т	U	. 1	h
Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Units	Tenths	Hundredth

It is our place value knowledge.

- When we multiply by 10, 100,100 the digits all get a multiple of 10 larger. This means that they move to the left in a place value grid. For example a 4 will move from the 'ones' column into the 'tens' column making it 40 if multiplied by 10. It moved one place to the left
- If I am dividing the same principles apply but it will be getting smaller so moves to the left. 3600 divided by 100 will move the 3 from the 'thousands' column into the 'tens' column and the 6 from the 'hundreds' column into the ones 'column' making the answer 36. It has moved 2 places to the right

M.	HTH	TTH	TH	н	Т	U	. 1	h
Aillions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Units	Tenths	Hundredths





	Multiplying	Dividing		
X 10	digits move LEFT 1 space	÷ 10	digits move RIGHT 1 space	
X 100	digits move LEFT 2 spaces	÷ 100	digits move RIGHT 2 spaces	
X 1000	digits move LEFT 3 spaces	÷ 1000	digits move RIGHT 3 spaces	
				

- Looking at this support sheet, can you tell me any other facts about multiplying and dividing by 10, 100, 1000?
- Why do I move one place when operating with 10? 2 with 100? 3 with 1000?
- So how would I multiply or divide by 1000000?

<u>Fluency</u>

1*

Multiply the following numbers by 10, 100 and 1000 to complete the table.

	x 10	x 100	x 1000
5.7			
23.02			
0.92			
0.306			
24.67			

Multiply the following numbers by 10, 100 and 1000 to complete the table.

	x 10	× 100	× 1000
4.02			
0.045			
34.094			
209.817			
0.006			

2*

3*

Complete the following table.

	÷ 1000	x 100	÷ 10
6.45			
0.501			
			93.6
	7.18		

Reasoning- lets look at and discuss these questions.

Whitney has £1,020 in her bank account.

Tommy has £120 in his bank account.

Whitney says,

I have ten times more money than you

Is Whitney correct? Explain your reasoning.

Jack is thinking of a 3-digit number.

When he multiplies his number by 100, the ten thousands and hundreds digit are the same.

The sum of the digits is 10

What number could Jack be thinking of?

Plenary- Missing number

1. Use the multiplication and division facts below to fill in the missing numbers to complete the calculations

Multiplication/Division Fact	Missing number calculation
6.4 × 10 = 64	64 ÷ 10 =
75 ÷ 10 = 7.5	7.5 × 10 =
6530 ÷ 100 = 65.3	65.3 × 100 =
24.5 × 100 = 2450	2450 ÷ 100 =
7.6 × 1000 = 7600	7600 ÷ 1000 =
45 ÷ 100 = 0.45	0.45 × 100 =

2. Fill in the missing numbers in these multiplication calculations: