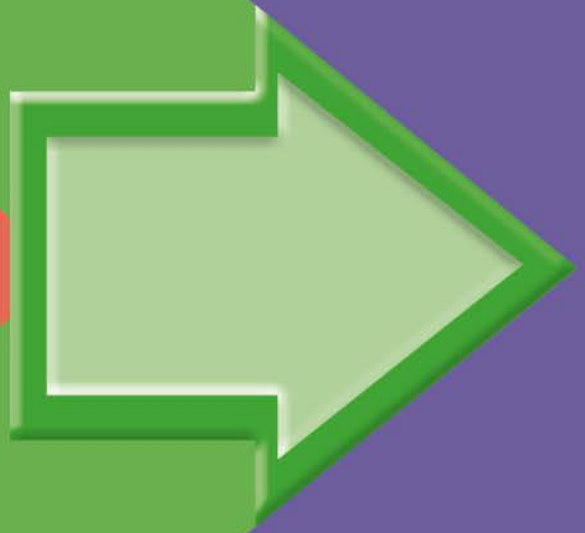
MULTIPLY BY 10, 100 AND 1,000



White Rose Maths

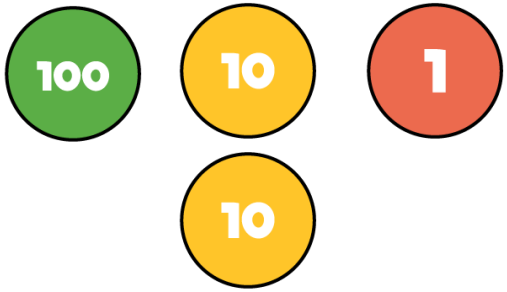
GET READY

White Rose Maths

1) $32 \times 10 =$

$32 \times 100 =$

$32 \times 1{,}000 =$

2) 

$\times \quad 100 \quad =$

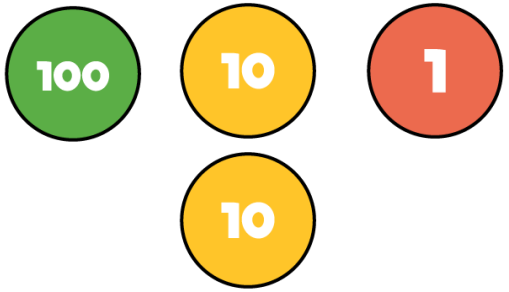
3)

?									
97	97	97	97	97	97	97	97	97	97

1) $32 \times 10 = 320$

$32 \times 100 = 3{,}200$

$32 \times 1{,}000 = 32{,}000$

2) 

$\times \quad 100 \quad = 12{,}100$

121

3)

970									
97	97	97	97	97	97	97	97	97	97

LET'S LEARN

White Rose Maths

100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

Which counter has the highest value?

How many times greater is the red counter compared to the blue counter?

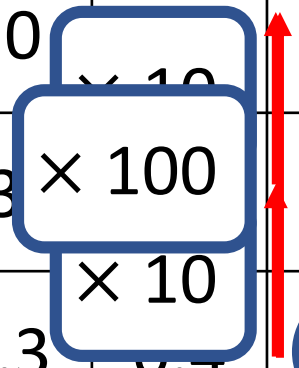
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

× 10

$0.3 \times 10 = 3$

Have a think

100	200	300	400	500	600	700	800	900
10	20	30		50	60	70	80	90
1	2	3		5	6	7	8	9
0.1	0.2	0.3		0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09



$0.5 \times 10 \times 10 = 50$

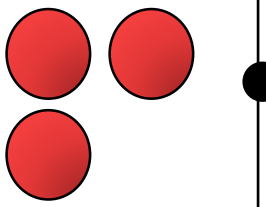
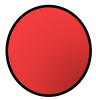
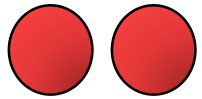
$0.5 \times 100 = 50$

$0.6 \times 1{,}000 = 600$

Have a think

100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

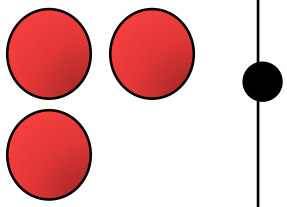
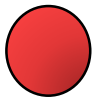
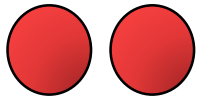
$3.12 \times 10 = 31.2$

Th	H	T	O	tth	hth
					
			3	1	2

When the number is multiplied by 10 the counters move

__1__ place to the __left__.

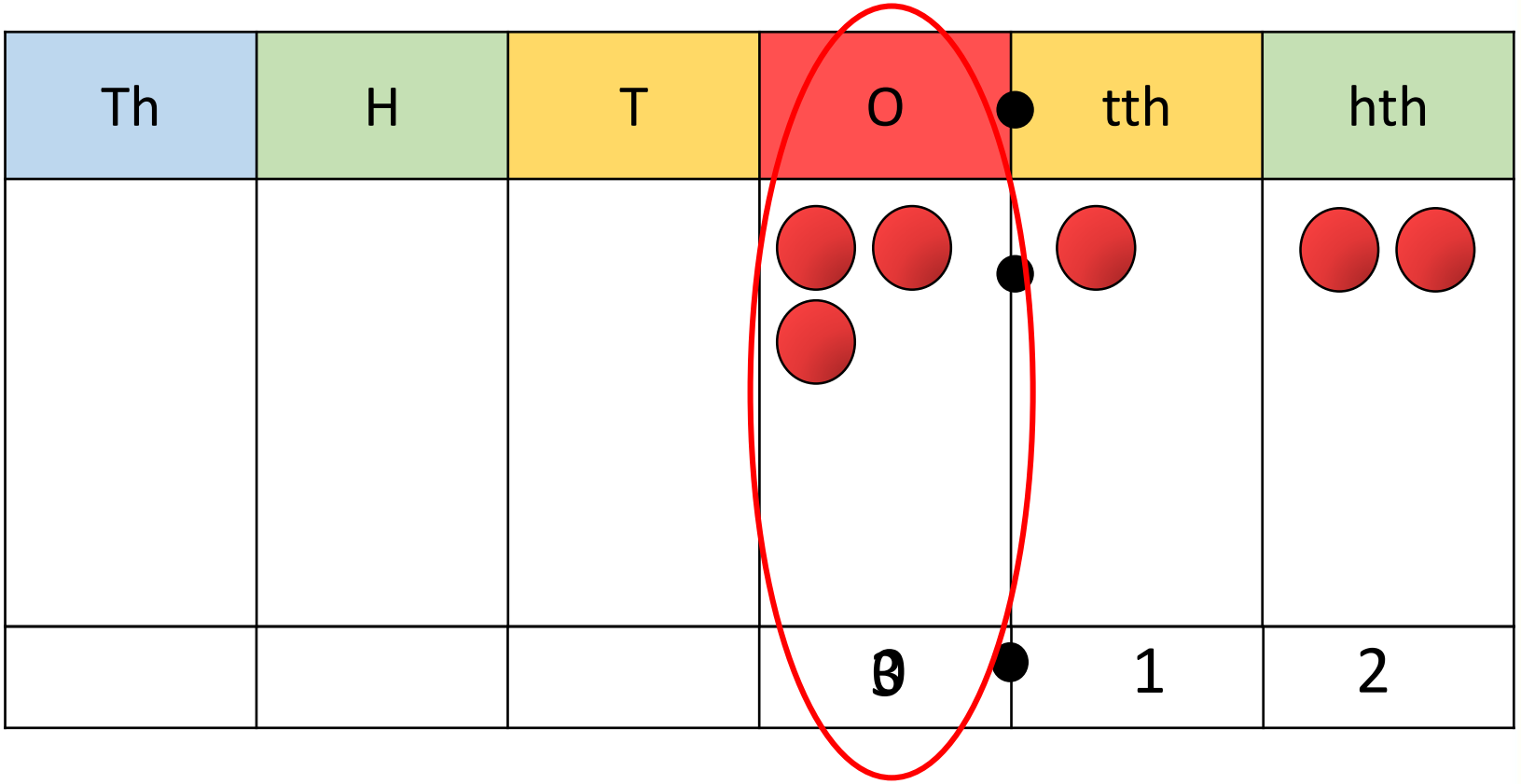
$3.12 \times 100 =$ 312

Th	H	T	O	tth	hth
					
			3	1	2

When the number is multiplied by 100 the counters move

__2__ places to the __left__.

$3.12 \times 1{,}000 = 3{,}120$ Have a think

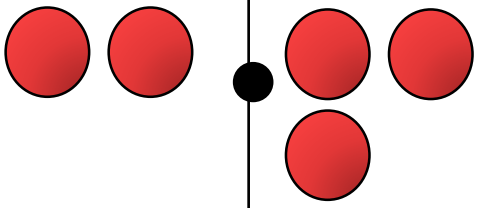


Th	H	T	O	tth	hth
			3	1	2

When the number is multiplied by 1,000 the counters move

___3___ places to the ___left___.

$2.3 \times \square = 230$ Have a think

Th	H	T	O	tth	hth
					
			0	3	

When the number is multiplied by 10 the counters move
__1__ place to the __left__.

When the number is multiplied by 100 the counters move
__2__ places to the __left__.

When the number is multiplied by 1,000 the counters move
__3__ places to the __left__.

YOUR TURN

Have a go at questions
1 - 4 on the worksheet

White Rose Maths

Use $>$, $<$ or $=$ to complete the sentences

$7.2 \times 10 \times 10$ $<$ $7.2 \times 1{,}000$

7.2×100

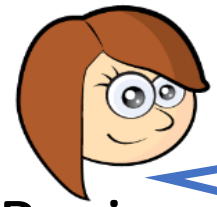
$7.2 \times 100 \times 10$ $=$ $7.2 \times 1{,}000$

$7.2 \times 1{,}000$

Have a think

4.2×200

Have a think



Rosie

You could do

$4.2 \times 100 \times 2$

I disagree, there are two hundreds so it would be

$4.2 \times 100 \times 100$

Amir

Dora

I think it'd be

$4.2 \times 2 \times 100$

100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

$4.2 \times 100 \times 2 = 840$

100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

$$4.2 \times 100 \times 2 = 840$$

$$4.2 \times 2 \times 100 = 840$$

10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

$$4.2 \times 100 \times 100 = 42{,}000$$

YOUR TURN

Have a go the rest of the questions on the worksheet

White Rose Maths