Name _____ Date _____

Multiplying and Dividing by 10, 100 and 1000

Example

Th	H	T	O	t	h	th
			3 .	4	5	

3.45

		3	4 .	5		

× 10 = 34.5

When we multiply by 10, every digit moves **one place to the left** and is worth 10 times more. The point stays between the ones and the tenths: $3.45 \times 10 = 34.5$.

1 ON YOUR OWN Multiply.

	× 10	× 100	× 1000
2.5			
0.07			
1.234			
0.6			

Th	H	T	O	t	h	th
			3 .	2		

3.2

			0 .	0	3	2

÷ 100 = 0.032

When we divide by 100, the digits move two places to the **right**: $3.2 \div 100 = 0.032$.

2 ON YOUR OWN Divide.

	÷ 10	÷ 100	÷ 1000
45			
3.2			
0.8			
250			

Names (pair) _____ Date _____

Remember

Multiplying by 10, 100 or 1000: the digits move 1, 2 or 3 places to the **left**. Dividing: to the **right**. Empty places between the digits and the point are filled with zeros: $0.07 \times 100 = 7$, $3.2 \div 100 = 0.032$. The rule "add a zero" only works for whole numbers.

3 IN PAIRS Who is right? Explain using the place value table.

Luke: $2.5 \times 10 = 2.50$. **true** / **false**

Why? _____

Emma: $4.6 \div 10 = 0.46$. **true** / **false**

Why? _____

Ivo: $0.3 \times 100 = 0.300$. **true** / **false**

Why? _____

4 ON YOUR OWN What is the missing number?

$3.7 \times \square = 370$

$\square \div 100 = 0.05$

$0.28 \times \square = 28$

$56 \div \square = 0.056$

5 ON YOUR OWN Convert the units.

2.5 m = $\square$ cm

340 cm = $\square$ m

0.75 kg = $\square$ g

1250 g = $\square$ kg

★ ON YOUR OWN **Exit card.** Work out 0.045×100 and $7 \div 1000$.

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