To work out a decimal (a number with a decimal point) $\div 10$ or $\div 100$ or $\div 1000$ you can

(a) use the place value grid

e grid	Th	Н	Т	U	t	h	th	t th	
	1	2	3	4	5				\rightarrow $\div 10$
$1234.5 \div 10$		1	2	3	4	5			$\div 10$
$1234.5 \div 100$			1	2	3	4	5		\downarrow
$1234.5 \div 1000$				1 4	2	3	4	5	$\div 10$

or (b) move the decimal point ... spaces to the left

$$1234.5 \div 10$$

$$1\ 2\ 3\cancel{4}\cancel{5} = 123.45$$

$$1234.5 \div 100$$

$$12\cancel{5}\cancel{4}\cancel{5} = 12.345$$

$$1234.5 \div 1000$$

$$1\cancel{5}\cancel{3}\cancel{4}\cancel{5} = 1.2345$$

How many spaces?

- (i) 10 has **one** 0 at the end, so move the decimal place **one** place to the left.
- (ii) 100 has **two** 0's at the end, so move the decimal place places to the left.
- (iii) 1000 has 0's at the end, so move the decimal place places to the left.

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(a) use the place value grid

	Th	Н	Т	U	t	h	th	t th	
	1	2	3	4	5				$\rightarrow \div 10$
10		1	2	3	4	5			$\Rightarrow 10$
L00			1	2	3	4	5		
1000				1 •	2	3	4	5	$\div 10$

or (b) move the decimal point ... spaces to the left

$$1234.5 \div 10$$

 $1234.5 \div 1$

 $1234.5 \div 1$

 $1234.5 \div 1$

$$1\ 2\ 3\cancel{4}\cancel{5} = 123.45$$

$$1234.5 \div 100$$

$$12\cancel{5}\cancel{4}\cancel{5} = 12.345$$

$$1234.5 \div 1000$$

$$1 \stackrel{\frown}{\cancel{2}} \stackrel{\frown}{\cancel{3}} \stackrel{\frown}{\cancel{4}} \stackrel{\frown}{\cancel{5}} = 1.2345$$

How many spaces?

- (i) 10 has **one** 0 at the end, so move the decimal place **one** place to the left.
- (ii) 100 has **two** 0's at the end, so move the decimal place places to the left.
- (iii) $1000 \text{ has} \dots 0$'s at the end, so move the decimal place \dots places to the left.