

Multiplying by 10 and 100

NAME:

When we multiply by 10 the digits in a number move 1 place to the left

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
H	T	O	H	T	O	t	h
					3	6	
				3	6		

$3.6 \times 10 = 36$

$3.6 \times 10 = 36$

Short cut for decimal numbers – move the decimal one place to the right

$36 \times 10 = 360$

Short cut for whole numbers – add a zero

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
H	T	O	H	T	O	t	h
			4	5	0		

$450 \times 10 =$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
H	T	O	H	T	O	t	h
		3	2	0	0		

$3200 \times 10 =$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
H	T	O	H	T	O	t	h
				3	3	7	

$33.7 \times 10 =$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
H	T	O	H	T	O	t	h
					6	3	5

$6.35 \times 10 =$

When we multiply by 100, the digits move 2 places to the left.

Thousands		
H	T	O

Ones		
H	T	O
		3
3	6	0

Parts of one	
tenths	hundredths
t	h
6	

$3.6 \times 100 = 360$

$3.6 \times 100 = 360$ **Short cut for decimal numbers** – move the decimal two place to the right

$36 \times 100 = 3600$ **Short cut for whole numbers** – add two zeros

When we multiply by 100, the digits move 2 places to the left.

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Thousands</th> </tr> <tr> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Thousands			H	T	O							<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Ones</th> </tr> <tr> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td> </td> <td>6</td> <td>5</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Ones			H	T	O		6	5				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Parts of one</th> </tr> <tr> <th>tenths</th> <th>hundredths</th> </tr> <tr> <th>t</th> <th>h</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Parts of one		tenths	hundredths	t	h					$65 \times 100 =$
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When we divide by 10 the digits in a number move 1 place to the right.

