

Multiplying and Dividing by 10 and 100

NAME: _____

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

$$3.6 \times 10 =$$

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

No need to put in decimal place holders for you answers unless it is money

$$3.6 \times 10 = 36$$

(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)

Move the digits 1 place to the left when x10

$$350 \times 10 =$$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
			3	5	0		

$$2.7 \times 10 =$$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
					2	7	

$$0.65 \times 10 =$$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
					0	6	5

$$2.06 \times 10 =$$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
					2	0	6

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

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
					3	6	
			3	6	0		

3.6 x 100 = 360

$$3.6 \times 100 = 360$$

(Short cut for decimal numbers – move the decimal two place to the right)

36 x 10 (Short cut for whole numbers – add two zeros)

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

Move the digits 2 places to the left when x100

$$150 \times 100 =$$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
			1	5	0		

$$52.7 \times 100 =$$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
				5	2	7	

$$9.01 \times 100 =$$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
					9	0	1

$$60.56 \times 100$$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
				6	0	5	6

When we divide by 10 the digits in a number move 1 place to the right.

$3.6 \div 10 = 0.36$ (Short cut for decimal numbers – move the decimal one place to the left)

$36 \div 10 = 3.6$ (Short cut for whole numbers – add 1 decimal place)

When we divide by 100 the digits in a number move 2 places to the right.

Move the digits 1 places to the right when $\div 10$

$920 \div 10 =$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
			9	2	0	t	h

$564 \div 10 =$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
			5	6	4	t	h

$83.6 \div 10$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
				8	3	6	t
							h

Move the digits 2 places to the right when $\div 100$

$572 \div 100$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
			5	7	2		t
							h

$660 \div 100$

Thousands			Ones			Parts of one	
H	T	O	H	T	O	tenths	hundredths
			6	6	0		t
							h

X10

Move the decimal 1 place to the right or add a 0

$$530 \times 10 =$$

$$84 \times 10 =$$

$$8.2 \times 10 =$$

$$34.2 \times 10 =$$

$$0.75 \times 10 =$$

$$43.05 \times 10 =$$

$$4.21 \times 10 =$$

$$67.23 \times 10 =$$

X100

Move the decimal 2 places to the right or add two 0's

$$74 \times 100 =$$

$$843 \times 100 =$$

$$950 \times 100 =$$

$$83.9 \times 100 =$$

$$32.05 \times 100 =$$

$$84.7 \times 100 =$$

$$71.05 \times 100 =$$

$$40.76 \times 100 =$$

Shortcut $\div 10$

For decimal numbers, move the decimal 1 place to the left

For whole numbers, remove a zero or add 1 decimal place

$$810 \div 10 =$$

$$57 \div 10 =$$

$$824 \div 10 =$$

$$9.4 \div 10 =$$

$$53.7 \div 10 =$$

Shortcut $\div 100$

For decimal numbers, move the decimal 2 places to the left

For whole numbers, remove a two zeros or add 2 decimal place

$$280 \div 100 =$$

$$4912 \div 100 =$$

$$2700 \div 100 =$$

$$834 \div 100 =$$

$$642.6 \div 100 =$$