

Multiplying by 10, 100 and 1,000

Multiplying by 10

When you multiply a decimal number by 10 you move all the digits **one place to the left**. The number becomes **10 times bigger**.

Example: $2.63 \times 10 = 26.3$

You can see from the answer that the digits move to the left - units move to tens and the others follow like this:

H	T	U		$\frac{1}{10}$	$\frac{1}{100}$
		2	.	6	3
	2	6	.	3	

H = hundreds
T = tens
U = units

Multiplying by 100

When you multiply a decimal number by 100 you move all the digits **two places to the left**. The number becomes **100 times bigger**.

Example: $2.63 \times 100 = 263$

Th	H	T	U		$\frac{1}{10}$	$\frac{1}{100}$
			2	.	6	3
	2	6	3			

Th = thousands
H = hundreds
T = tens
U = units

Multiplying by 1,000

When you multiply a decimal number by 1,000 you move all the digits **three places to the left**. The number becomes **1,000 times bigger**.

Example: $2.63 \times 1,000 = 2,630$

TTh	Th	H	T	U		$\frac{1}{10}$	$\frac{1}{100}$
				2	.	6	3
	2	6	3	0			

TTh = tens of thousands
Th = thousands
H = hundreds
T = tens
U = units