





Metrics are in Multiples of 10

Kilo-	.025				
Hecto-		10			0.37
Deca-					
Meter Liter Gram	25		7		
Deci-		10,000		50	
Cent-					
Milli-	25,000				

Metrics are in Multiples of 10

Kilo-	.025		
Hecto-			
Deca-			
Meter Liter Gram	25		
Deci-			
Centi-			
Mili-	25,000		

Move the decimal to the left or right

Kilo-	.025		
Hecto-	.25		
Deca-			
Meter	25		
Liter			
Gram			
Deci-			
Centi-	2,500		
Mili-	25,000		

Try the next one:

Kilo-	.025		
Hecto-	.25	10	
Deca-	2.5		
Meter Liter Gram	25		
Deci-	250	10,000	
Centi-	2,500		
Mili-	25,000		

Kilo-	.025	1	
Hecto-	.25	10	
Deca-	2.5	100	
Meter Liter Gram	25	1,000	7
Deci-	250	10,000	
Centi-	2,500	100,000	
Mili-	25,000	1,000,000	

How to convert units!

- ▶ Take what you have and multiply by the conversion factor to get what you want.

Unit Conversions

$$\begin{array}{ccc} \frac{6 \text{ ft}}{} & \times & \frac{12 \text{ in}}{1 \text{ ft}} = \frac{? \text{ in}}{} \\ \uparrow & & \uparrow \\ \text{What you have} & & \text{Conversion factor} \\ & & \downarrow \\ \frac{6 \text{ ft}}{} & \times & \frac{1 \text{ ft}}{12 \text{ in}} = \frac{? \text{ in}}{} \end{array}$$

The diagram illustrates two methods for unit conversion. The top method shows converting 6 feet to inches by multiplying by a conversion factor of 12 inches per 1 foot. The bottom method shows converting 6 feet to inches by multiplying by a conversion factor of 1 foot per 12 inches. Red arrows indicate the flow of information: from the starting value to the conversion factor, and from the conversion factor to the desired unit.

Practice Converting

1. 5 in = _____ cm

2. 7 mi = _____ km

3. 12 oz = _____ g

4. 2.5 L = _____ gal

5. 150 lbs = _____ kg