

$$\begin{aligned} 10^4 &= 10000 \\ 10^2 &= 100 \\ 10^1 &= 10 \\ 10^0 &= 1 \\ 10^{-1} &= .1 \\ 10^{-2} &= .01 \\ 10^{-3} &= .001 \end{aligned}$$

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Big	(G) Giga	10^9
	(M) Mega	10^6
	(K) Kilo	10^3
<hr/>		
Small	(c) Centi	10^{-2}
	(m) milli	10^{-3}
	(u) micro	10^{-6}
	(n) nano	10^{-9}

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Ex 1 1000g \rightarrow mg

$$\frac{1000g}{1} \times \frac{1 \text{ mg}}{10^{-3} \text{ g}} = \frac{1000}{.001} \text{ mg}$$

$$10^{-3} = .001$$

$$= 1,000,000 \text{ mg}$$

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Ex #2 524ms \rightarrow Seconds

$$\frac{524\text{ms}}{1} \times \frac{10^{-3} \text{ s}}{1 \text{ ms}} = .524 \text{ s}$$

Ex #3 2.4km \rightarrow m

$$\frac{2.4\text{km}}{1} \times \frac{10^3 \text{ m}}{1 \text{ km}} = 2400\text{m}$$

$$10^3 = 1000$$

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Ex #4

4500 mg \rightarrow Kg

must _{1st} go to Base unit

$$\frac{4500 \text{ mg}}{10^{-3} \frac{\text{g}}{\text{mg}}} \times \frac{1 \text{ Kg}}{10^3 \frac{\text{g}}{\text{Kg}}} = \frac{4.5}{1000} = .0045 \text{ Kg}$$

$4.5 \times 10^{-3} \text{ Kg}$

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Ex #5

2,500,000 cm \rightarrow Km

$$\frac{2500000 \text{ cm}}{10^{-2} \frac{\text{m}}{\text{cm}}} \times \frac{1 \text{ Km}}{10^3 \frac{\text{m}}{\text{Km}}} = \frac{25000}{1000}$$

25 Km

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