

Mass – Grade 8

Let's remind the measuring units of the mass.

Milli gramme

Gramme

Kilo Gramme

The relation of this units are

$$1\text{g} = 1000\text{mg}$$

$$1\text{kg} = 1000\text{g}$$

Further 1000kg is equal to the mass of one metric ton. The symbol we use to mention metric ton is "t"

$$1000\text{kg} = 1\text{t}$$

Convert the following kilo grammes to metric tons.

$$1000\text{kg} = 1\text{t},$$

Example 1 :-

$$\text{i. } 3000\text{kg} = \frac{3000}{1000} = 3\text{t}$$

$$\text{ii. } 5000\text{kg} = \frac{5000}{1000} = 5\text{t}$$

$$\text{iii. } 5453\text{kg} = \frac{5453}{1000} = 5.453\text{t}$$

Example 2 :- Represent 5t 458kg in metric tons.

$$\begin{aligned} 5t\ 458 &= 5t + \frac{458}{1000} \\ &= 5t + 0.458 \\ &= \underline{\underline{5.458\ t}} \end{aligned}$$

Now using the above knowledge do the Exercise 9.1

Calculations between metric tons & kilo grammes

Always 1t is equal to 1000kg. So in kilo grammes column we can't write the numbers greater than 1000.

Example 3 :-

t	kg
3	475
+ 5	<u>828</u>
9	<u><u>303</u></u>

When we add the kilo grammes column. Answer obtained is 1303kg. its equal to 1t + 303kg. so we can write 303kg in kilo gramme column and take the remainder of 1t, to the metric ton column.

Now do the Exercise 9.2

Example 4 :-

t	kg
4	1350
5	<u>350</u>
- 1	<u>825</u>
3	<u><u>525</u></u>

Here we can't subtract 825kg from 350kg. So we have to borrow it from metric ton column. Now we can subtract 825kg from 1350kg

Now do the Exercise 9.3

Example 5 :-

$$\begin{array}{r} \text{t} \quad \text{kg} \\ 3 \quad 825 \times \\ \underline{\quad \quad 5} \\ 16 \quad 125 \\ \hline \hline \end{array}$$

First we have to multiply kg column, the answer obtained is 4125kg. it's equal to 4t 125kg. So we can write 125kg in kilo gramme column and remainder we can add to the metric ton column

Now do the Exercise 9.4

Example 6 :-

$$\begin{array}{r} \text{t} \quad \text{kg} \\ 3 \quad 460 \\ 5 \overline{) 17 \quad 300} \\ \underline{15} \\ 2 \rightarrow 2000 \\ \underline{ 2300} \\ \underline{20} \\ 30 \\ \underline{30} \\ 00 \end{array}$$

Let's divide 17t from 5. Remaining 2t, we can transfer to kilo grammes column as 2t + 300kg = 2300kg. now divide the 2300/5 it's equal to 460kg.

Now do the Exercise 9.5