

MATHS
VIDEO-1

We measure the weight (mass) of objects in grams and kilograms. Gram is the basic unit of mass. For example, we weigh ourselves in kilograms, we buy rice, wheat, fruit, etc, in kilograms, while small quantities or light objects or precious objects such as gold, silver, medicines etc. are weighed in grams. The short form of gram is 'g' and of kilogram is 'kg'. $1 \text{ kg} = 1000 \text{ g}$

CONVERSION OF UNITS OF MASS:-

① kilograms into grams: → To convert (change) kilograms into grams we multiply the number of kilograms by 1000 (since $1 \text{ kg} = 1000 \text{ g}$) or put 3 zeros on the right.

(2) Kilograms and grams into grams: → To convert (change) kilograms and grams into grams we multiply the number of kilograms by 1,000 (since $1\text{ kg} = 1000\text{ g}$) and then add the number of grams to it.

(3) Grams into kilograms: → To convert grams into kilograms we divide the number of grams by 1000.

(4) Grams into kilograms and grams: → To convert (change) grams into kilograms and grams we divide the number of grams by 1000. Quotient is in kilograms, remainder is in grams.

Q.1(a) Change 3 kg into g. EXERCISE-17A | PAGE NO. 137

Solution:

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

$$\therefore 3\text{ kg} = 3 \times 1000\text{ g} = \underline{3000\text{ g}}$$

Q.1(d) Change 9 kg into g.

Solution: $\because 1\text{ kg} = 1000\text{ g}$

$$\therefore 9\text{ kg} = 9 \times 1000\text{ g} = \underline{9000\text{ g}}$$

Ans

Q.2(a) Change 5kg 700g

Solution: into g.

$$\because 1 \text{ Kg} = 1000 \text{ g}$$

$$\therefore 5 \text{ kg } 700 \text{ g}$$

$$= 5 \text{ kg} + 700 \text{ g}$$

$$= 5 \times 1000 \text{ g} + 700 \text{ g}$$

$$= 5000 \text{ g} + 700 \text{ g}$$

$$= 5,700 \text{ g Ans}$$

Q.2(d) Change 4 kg 9 g

Solution: into g.

$$4 \text{ kg } 9 \text{ g} = 4 \text{ kg} + 9 \text{ g}$$

$$= 4 \times 1000 \text{ g} + 9 \text{ g} [\because 1 \text{ kg} = 1000 \text{ g}]$$

$$= 4000 \text{ g} + 9 \text{ g}$$

$$= \underline{4,009 \text{ g Ans}}$$

Q.3(a) Change 4000g

Solution: into kg.

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

$$\therefore 4000 \text{ g} = 4000 \div 1000$$

$$= 4 \text{ kg Ans}$$

Q.3(d) Change 9000g

Solution: into kg.

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

$$\therefore 9000 \text{ g} = 9000 \div 1000$$

$$= 9 \text{ kg Ans}$$

Q.4(a) Change 7629g

Solution: into kg and g.

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

$$\therefore 7629 \text{ g} = 7629 \div 1000$$

$$= 7 \text{ kg } 629 \text{ g}$$

Ans

$$\begin{array}{r} 1000 \overline{) 7629 \text{ g}} \quad (7 \text{ kg}) \\ \underline{- 7000} \\ R \rightarrow 629 \text{ g} \end{array}$$

Q.4(d) Change 7004g into kg and g.

Solution:

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

$$\therefore 7004 \text{ g}$$

$$= 7004 \div 1000$$

$$= 7 \text{ kg } 4 \text{ g Ans}$$

$$\begin{array}{r} 1000 \overline{) 7004 \text{ g}} \quad (7 \text{ kg}) \\ \underline{- 7000} \\ R \rightarrow 4 \text{ g} \end{array}$$