Cosmo School

Class-5

Subject-Mathematics

Chapter-11

Measurement

Lecture-3

Weight: Weight is how heavy something or how much mass it has. An example of weight is when a person is 60 kg.

Formula:

1) 1 kilogram (kg) = 1000 gram (g)

1 gram (g) = $\frac{1}{1000}$ = 0.001 kilogram (kg)

2) 1 hectogram (hg) = 100 gram (g)

1 gram (g) = $\frac{1}{100}$ = 0.01 hectogram (hg)

3) 1 decagram (dag) = 10 gram (g)

1 gram (g) = $\frac{1}{10}$ = 0.1 decagram (dag)

4) 1 Quintal = 100 kilogram (kg)

1 kilogram (kg) = $\frac{1}{100}$ = 0.01 Quintal

5) 1 metric ton = 10 quintal

6) 1 metric ton = 1000 kilogram (kg)

****Fill in the blanks:**

1) 6285g = ☐ kg ☐ g = ☐ kg ☐ hg ☐ dag ☐ g

Solution:

6285g = (6285 ÷ 1000) kg [∵ 1 g = $\frac{1}{1000}$ kg]

= 6kg + 285g

= 6kg 285g

6285g = [6] kg [285] g

Again,

6285g = 6kg + 285g

= 6kg + (285 ÷ 100) hg [∵ 1 g = $\frac{1}{100}$ hg]

= 6kg + 2hg + 85g

= 6kg + 2hg + (85 ÷ 10) dag [∵ 1 g = $\frac{1}{10}$ dag]

= 6kg + 2hg + 8dag + 5g

= 6kg 2hg 8dag 5g

6285g = [6] kg [2] hg [8] dag [2] g

2) 9060g = [ ] kg [ ] g = [ ] kg [ ] dag

Solution:

9060g = (9060 ÷ 1000) kg [∵ 1 g = $\frac{1}{1000}$ kg]

= 9kg + 60g

= 9kg 60g

9060g = [9] kg [60] g

Again,

9060g = 9kg + 60g

= 9kg + (60 ÷ 10) dag [∵ 1 g = $\frac{1}{10}$ dag]

= 9kg + 6dag

= 9kg 6dag

9060g = [**9**] kg [6] dag

3) 1kg 382g = ☐ hg

Solution:

1kg 382g = (1 × 10)hg + 382g [∵ 1kg = 10hg]

= 10hg +(382 ÷ 100) hg [∵ 1 g = $\frac{1}{100}$ hg]

= 10hg + 3.82hg

= 13.82hg

1kg 382g = [13.82] hg

1. Exercise (Do yourself)

a) 25kg 800g = ☐ dag

b) 750g = ☐ kg

****Write an appropriate inequality sign, > or <, in the blank box:**

1) 3600kg ☐ 4 metric ton

Solution:

Here, 4 metric ton = (4 × 1000) kg [∵ 1metric ton = 1000kg]

= 4000kg

∵ 3600kg < 4000kg

∴ 3600kg [<] 4 metric ton

2) 840kg ☐ 0.7 metric ton

Solution:

Here, 0.7 metric ton = (0.7 × 1000) kg [∵ 1metric ton = 1000kg]

= 700kg

∵ 840kg > 700kg

∴ 840kg [>] 0.7 metric ton

2. Exercise (Do yourself)

****Write an appropriate inequality sign, > or <, in the blank box:**

2.5kg ☐ 1800g

****Calculate the following addition and subtraction, and express the answer using the units in the bracket:**

1) 21kg 340g + 25kg 750g (kg, dag)

Solution:

21kg 340g + 25kg 750g

= (21 + 25) kg + (340 + 750) g

= 46kg + 1090g

= 46kg + (1090 ÷ 1000) kg [∵ 1 g = $\frac{1}{1000}$ kg]

= 46kg + 1kg + 90g

= 47kg + (90 ÷ 10) dag [∵ 1g = $\frac{1}{10}$ dag]

= 47kg + 9dag

= 47kg 9dag

2) 12kg 250g – 3280g (kg, dag)

Solution:

12kg 250g – 3280g

= {(12 × 1000) g + 250g} – 3280g

= (12000 + 250) g – 3280g

= 12250g – 3280g

= 8970g

= (8970 ÷ 1000) kg [∵ 1 g = $\frac{1}{1000}$ kg]

= 8kg + 970g

= 8kg + (970 ÷ 10) dag [∵ 1g = $\frac{1}{10}$ dag]

= 8kg + 97dag

= 8kg 97dag

3. Exercise (Do yourself)

Calculate the following addition and subtraction, and express the answer using the units in the bracket:

a) 4523g + 3388g (kg, hg, dag, g)

b) 8520g – 3490g (kg, hg, dag)