

St. Andrews Scots Sr. Sec. School

9th Avenue, I.P. Extension, Patparganj, Delhi -110092

Session: 2025-2026

Class: V

Subject: Mathematics

Topic: Unit -11 (Measurement)

Warm up + 3 tables(pg-117)

Measurement of weight, length and capacity

Conversion table (pg-118)

Ex-1 Q.1; Q.2 a,d,g,h,i; Q.3 a,d,g,h,i(Notebook)

Ex-2 Q.1 a,b; Q.2; Q.4 a,d; Q.5 a,e,f (Notebook)

Ex-3 Q.1 a,c; Q.2 a,d,f; Q.3 a,d,f (Notebook)

Worksheet

Exercise-1

1. (a) (iii) 3 dag 1 g 2 dg 3 cg
- $$\begin{aligned} &= 3 \text{ dag} + 1 \text{ g} + 2 \text{ dg} + 3 \text{ cg} = 3 \times 10 \text{ g} + 1 \text{ g} + 2 \times \frac{1}{10} \text{ g} + 3 \times \frac{1}{100} \text{ g} \\ &= 3 \times 10 \text{ g} + 1 \text{ g} + 2 \times 0.1 \text{ g} + 3 \times 0.01 \text{ g} \\ &= 30 \text{ g} + 1 \text{ g} + 0.2 \text{ g} + 0.03 \text{ g} = 31.23 \text{ g} \end{aligned}$$
- (b) (ii) 3 dm 4 cm 4 mm
- $$\begin{aligned} &= 3 \text{ dm} + 4 \text{ cm} + 4 \text{ mm} \\ &= \frac{3}{10} \text{ m} + \frac{4}{100} \text{ m} + \frac{4}{1000} \text{ m} \\ &= 0.3 \text{ m} + 0.04 \text{ m} + 0.004 \text{ m} = 0.344 \text{ m} \end{aligned}$$
2. (a) 1 km = 1000 m
- $$\therefore 12 \text{ km} = 12000 \text{ m}$$
- So, 12 km 400 m = (12000 + 400) m = 12400 m
- (b) 1 m = 100 cm
- $$\therefore 45 \text{ m} = 45 \times 100 \text{ cm} = 4500 \text{ cm}$$
- So, 45 m 20 cm = (4500 + 20) cm = 4520 cm
- (c) 1 dam = 1000 cm
- $$\therefore 2 \text{ dam} = 2000 \text{ cm}$$
- So, 2 dam 45 cm = (2000 + 45) cm = 2045 cm
- (d) 1 hg = 100 g
- $$\therefore 8 \text{ hg} = 8 \times 100 \text{ g} = 800 \text{ g}$$
- So, 8 hg 40 g = (800 + 40) g = 840 g
- (e) 1 kg = 1000 g
- $$\therefore 54 \text{ kg} = 54 \times 1000 \text{ g} = 54000 \text{ g}$$
- So, 54 kg 800 g = (54000 + 800) g = 54800 g
- (f) 1 g = 1000 mg
- $$\therefore 11 \text{ g} = 11 \times 1000 \text{ mg} = 11000 \text{ mg}$$
- So, 11 g 900 mg = (11000 + 900) mg = 11900 mg
- (g) 45.5 l = 45.5 \times 1000 ml = 45500 ml
- (h) 1 l = 100 cl
- $$\therefore 25 \text{ l} = 25 \times 100 \text{ cl} = 2500 \text{ cl}$$
- So, 25 l 15 cl = (2500 + 15) cl = 2515 cl
- (i) 1 l = 1000 ml
- $$\therefore 99 \text{ l} = 99000 \text{ ml}$$
- So, 99 l 99 ml = (99000 + 99) ml = 99099 ml
3. (a) 1 m = 100 cm $\Rightarrow 1 \text{ cm} = \frac{1}{100} \text{ m}$
- $$\therefore 725 \text{ cm} = 725 \times \frac{1}{100} \text{ m} = \frac{725}{100} \text{ m} = 7.25 \text{ m}$$

$$\text{(d)} \quad 1 \text{ km} = 1000 \text{ m} \Rightarrow 1 \text{ m} = \frac{1}{1000} \text{ km}$$

$$\therefore 978 \text{ m} = 978 \times \frac{1}{1000} \text{ km} = \frac{978}{1000} \text{ km} = 0.978 \text{ km}$$

$$\text{(e)} \quad 1 \text{ dg} = 100 \text{ mg} \Rightarrow 1 \text{ mg} = \frac{1}{100} \text{ dg}$$

$$\therefore 1575 \text{ mg} = 1575 \times \frac{1}{100} \text{ dg} = \frac{1575}{100} \text{ dg} = 15.75 \text{ dg}$$

$$\text{(f)} \quad 1 \text{ dal} = 100 \text{ dl} \Rightarrow 1 \text{ dl} = \frac{1}{100} \text{ dal}$$

$$\begin{aligned} \therefore 3 \text{ dal } 50 \text{ dl} &= 3 \text{ dal} + 50 \times \frac{1}{100} \text{ dal} \\ &= 3 \text{ dal} + \frac{50}{100} \text{ dal} = 3 \text{ dal} + 0.5 \text{ dal} = 3.5 \text{ dal} \end{aligned}$$

$$\text{(g)} \quad 1 \text{ l} = 100 \text{ cl} \Rightarrow 1 \text{ cl} = \frac{1}{100} \text{ l}$$

$$\therefore 9 \text{ l } 38 \text{ cl} = 9 \text{ l} + 38 \times \frac{1}{100} \text{ l} = 9 \text{ l} + \frac{38}{100} \text{ l} = 9 \text{ l} + 0.38 \text{ l} = 9.38 \text{ l}$$

$$\text{(h)} \quad 1 \text{ kl} = 1000 \text{ l} \Rightarrow 1 \text{ l} = \frac{1}{1000} \text{ kl}$$

$$\therefore 735 \text{ l} = 735 \times \frac{1}{1000} \text{ kl} = \frac{735}{1000} \text{ kl} = 0.735 \text{ kl}$$

$$\text{(i)} \quad 1 \text{ kg} = 1000 \text{ g} \Rightarrow 1 \text{ g} = \frac{1}{1000} \text{ kg} = 0.001 \text{ kg}$$

$$\text{So, } 1845 \text{ g} = 1845 \times 0.001 \text{ kg} = 1.845 \text{ kg}$$

Exercise-2

1. (a) (i) The weight of a box full of dry fruits = 12.650 kg

The weight of dry fruits = 9 kg 800 g = 9.800 kg

The weight of empty box

$$= (12.650 - 9.800) \text{ kg}$$

$$= 2.850 \text{ kg}$$

$$= 2.850 \times 1000 \text{ g} = 2850 \text{ g}$$

$$\begin{array}{r} \textcircled{0}\textcircled{11}\textcircled{16} \\ \cancel{12}.\cancel{6}50 \text{ kg} \\ - 9.800 \text{ kg} \\ \hline 2.850 \text{ kg} \end{array}$$

- (b) (ii) Total length of the cloth = 6 m 25 cm + 1 m 75 cm + 8 m 50 cm

$$\begin{array}{r} \textcircled{1}\textcircled{1}\textcircled{1} \\ 6.25 \text{ m} \\ + 1.75 \text{ m} \\ + 8.50 \text{ m} \\ \hline 16.50 \text{ m} \end{array}$$

1 cm	= 0.01 m
25 cm	= 0.25 m
75 cm	= 0.75 m
50 cm	= 0.50 m

- (c) (iii) Total weight of the fruits

$$\begin{array}{r} \textcircled{1}\textcircled{1} \\ 4.200 \text{ kg} \\ + 2.800 \text{ kg} \\ + 5.750 \text{ kg} \\ \hline 12.750 \text{ kg} \end{array}$$

1 g	= 0.001 kg
200 g	= 0.200 kg
800 g	= 0.800 kg
750 g	= 0.750 kg

Thus, the total weight of fruits bought by Maya is 12.750 kg.

2. Quantity of water left in the tank at the end of the day

$$\begin{array}{r} \textcircled{2}\textcircled{9}\textcircled{9}\textcircled{9} \quad \textcircled{9}\textcircled{9}\textcircled{10} \\ 300\ell.000\ell \\ - 87.225\ell \\ \hline 212.775\ell \end{array}$$

1 mℓ	= 0.001 ℓ
225 mℓ	= 0.225 ℓ

3. Quantity of oil left = 7 ℓ - 2 ℓ 355 mℓ

$$\begin{array}{r} \textcircled{6}\textcircled{9}\textcircled{9}\textcircled{10} \\ 7\ell.000\ell \\ - 2\ell.355\ell \\ \hline 4\ell.645\ell \end{array}$$

1 mℓ	= 0.001 ℓ
355 mℓ	= 0.355 ℓ

4. (a) 1 ℓ = 0.001 kℓ, 35 ℓ = 0.035 kℓ, 10 ℓ = 0.010 kℓ

$$\therefore 79 \text{ k}\ell \text{ } 35 \ell = 79.035 \text{ k}\ell$$

$$95 \text{ k}\ell = 95.000 \text{ k}\ell$$

$$80 \text{ k}\ell \text{ } 10 \ell = 80.010 \text{ k}\ell$$

$$\begin{array}{r} \textcircled{2}\textcircled{1} \\ 79.035 \text{ k}\ell \\ + 95.000 \text{ k}\ell \\ + 80.010 \text{ k}\ell \\ \hline 254.045 \text{ k}\ell \end{array}$$

So, 79 kℓ 35 ℓ + 95 kℓ + 80 kℓ 10 ℓ = 254.045 kℓ = 254 kℓ 45 ℓ

(d) $1\text{ m}\ell = 0.001\text{ }\ell$, $65\text{ m}\ell = 0.065\text{ }\ell$, $90\text{ m}\ell = 0.090\text{ }\ell$, $86\text{ m}\ell = 0.086\text{ }\ell$

$$\begin{array}{r} \therefore 99\text{ }\ell\ 65\text{ m}\ell = 99.065\text{ }\ell \\ 90\text{ m}\ell = 0.090\text{ }\ell \\ 10\text{ }\ell\ 86\text{ m}\ell = 10.086\text{ }\ell \end{array}$$

$$\begin{array}{r} \textcircled{1} \quad \textcircled{20} \\ 99.065\text{ }\ell \\ 0.090\text{ }\ell \\ + 10.086\text{ }\ell \\ \hline 109.241\text{ }\ell \end{array}$$

$$\therefore 99\text{ }\ell\ 65\text{ m}\ell + 90\text{ m}\ell + 10\text{ }\ell\ 86\text{ m}\ell = 109.241\text{ }\ell = 109\text{ }\ell\ 241\text{ m}\ell$$

5. (a) $9.690\text{ kg} - 6.750\text{ kg}$
 $= 2.940\text{ kg}$

$$\begin{array}{r} \textcircled{8} \textcircled{16} \\ 9.690\text{ kg} \\ - 6.750\text{ kg} \\ \hline 2.940\text{ kg} \end{array}$$

(b) $1\text{ m} = 0.001\text{ km}$, $625\text{ m} = 0.625\text{ km}$, $125\text{ m} = 0.125\text{ km}$

$$\begin{array}{r} \therefore 10\text{ km}\ 625\text{ m} = 10.625\text{ km} \\ 12\text{ km}\ 125\text{ m} = 12.125\text{ km} \end{array}$$

$$\begin{array}{r} \textcircled{1} \textcircled{11} \\ 12.125\text{ km} \\ - 10.625\text{ km} \\ \hline 1.500\text{ km} \end{array}$$

$$\therefore 12\text{ km}\ 125\text{ m} - 10\text{ km}\ 625\text{ m} = 1.500\text{ km} = 1\text{ km}\ 500\text{ m}$$

(c) $1\text{ cm} = 0.01\text{ m}$, $89\text{ cm} = 0.89\text{ m}$, $5\text{ cm} = 0.05\text{ m}$

$$\begin{array}{r} \therefore 2\text{ m}\ 5\text{ cm} = 2.05\text{ m} \\ 2\text{ m}\ 5\text{ cm} - 89\text{ cm} = 1.16\text{ m} \\ = 1\text{ m}\ 16\text{ cm} \end{array}$$

$$\begin{array}{r} \textcircled{1} \\ \textcircled{1} \textcircled{10} \textcircled{15} \\ 2.05\text{ m} \\ - 0.89\text{ m} \\ \hline 1.16\text{ m} \end{array}$$

(d) $1\text{ m}\ell = 0.001\text{ }\ell$, $56\text{ m}\ell = 0.056\text{ }\ell$

$$\begin{array}{r} \therefore 10\text{ }\ell\ 56\text{ m}\ell = 10.056\text{ }\ell \\ 20\text{ }\ell = 20.000\text{ }\ell \end{array}$$

$$\begin{array}{r} \textcircled{9} \textcircled{9} \textcircled{9} \\ \textcircled{1} \textcircled{10} \textcircled{10} \textcircled{10} \textcircled{10} \\ 20.000\text{ }\ell \\ - 10.056\text{ }\ell \\ \hline 9.944\text{ }\ell \end{array}$$

$$\therefore 20\text{ }\ell - 10\text{ }\ell\ 56\text{ m}\ell = 9.944\text{ }\ell = 9\text{ }\ell\ 944\text{ m}\ell$$

(e) $1\text{ g} = 0.001\text{ kg}$, $390\text{ g} = 0.390\text{ kg}$, $160\text{ g} = 0.160\text{ kg}$

$$\begin{array}{r} \therefore 1\text{ kg}\ 160\text{ g} = 1.160\text{ kg} \\ 1\text{ kg}\ 160\text{ g} - 390\text{ g} = 0.770\text{ kg} = 770\text{ g} \end{array}$$

$$\begin{array}{r} \textcircled{10} \\ \textcircled{0} \textcircled{8} \textcircled{16} \\ 1.160\text{ kg} \\ - 0.390\text{ kg} \\ \hline 0.770\text{ kg} \end{array}$$

(f) $1\text{ mg} = 0.001\text{ g}$, $690\text{ mg} = 0.690\text{ g}$, $150\text{ mg} = 0.150\text{ g}$

$$\begin{array}{r} \therefore 8\text{ g}\ 690\text{ mg} = 8.690\text{ g} \\ 20\text{ g}\ 150\text{ mg} = 20.150\text{ g} \end{array}$$

$$\begin{array}{r} \textcircled{9} \textcircled{10} \\ \textcircled{1} \textcircled{10} \textcircled{8} \textcircled{15} \\ 20.150\text{ g} \\ - 8.690\text{ g} \\ \hline 11.460\text{ g} \end{array}$$

$$\therefore 20\text{ g}\ 150\text{ mg} - 8\text{ g}\ 690\text{ mg} = 11.460\text{ g} = 11\text{ g}\ 460\text{ mg}$$

Exercise-3

1. (a) (ii) The total weight of 7 tins of biscuits = $1 \text{ kg } 750 \text{ g} \times 7$

$$\begin{array}{r} 1 \text{ } 750 \\ \times 7 \\ \hline 12 \text{ } 250 \end{array} \quad \begin{aligned} &= 1.750 \text{ kg} \times 7 \\ &= 12.250 \text{ kg} \end{aligned}$$

- (b) (ii) The quantity of rice, each family will get = $48 \text{ kg } 700 \text{ g} \div 5$
 $= 48.700 \text{ kg} \div 5$

$$\begin{array}{l} 1 \text{ g} = 0.001 \text{ kg} \\ 700 \text{ g} = 0.700 \text{ kg} \end{array} \quad \begin{aligned} &= \left(\frac{48700}{1000} \div 5 \right) \text{ kg} = \left(\frac{9740}{1000} \times \frac{1}{5} \right) \text{ kg} \\ &= \frac{9740}{1000} \text{ kg} = 9.740 \text{ kg} \end{aligned}$$

- (c) (ii) The length of the ribbon = $8 \text{ m } 54 \text{ cm} = 8.54 \text{ m}$

It is cut into 7 equal pieces.

$$\text{The length of each piece} = 8.54 \text{ m} \div 7 = \frac{854}{100} \text{ m} \div 7$$

$$\begin{array}{l} 1 \text{ cm} = 0.01 \text{ m} \\ 54 \text{ cm} = 0.54 \text{ m} \end{array} \quad \begin{aligned} &= \left(\frac{854}{100} \div 7 \right) \text{ m} = \left(\frac{854}{100} \times \frac{1}{7} \right) \text{ m} = \frac{122}{100} \text{ m} \\ &= 1.22 \text{ m} \end{aligned}$$

Thus, the length of each piece is 1.22 m.

2. (a) $6.97 \text{ km} \times 1.7$

$$= 11.849 \text{ km}$$

Put the decimal point 3 places from the right.

$$\begin{array}{r} 6 \text{ } 97 \\ \times 1 \text{ } 7 \\ \hline 4 \text{ } 879 \\ + 6 \text{ } 970 \\ \hline 11 \text{ } 849 \end{array}$$

- (b) $3.58 \text{ g} \times 2.2$

$$= 7.876 \text{ g}$$

Put the decimal point 3 places from the right.

$$\begin{array}{r} 3 \text{ } 58 \\ \times 2 \text{ } 2 \\ \hline 716 \\ + 7160 \\ \hline 7 \text{ } 876 \end{array}$$

- (c) $6.6 \text{ cm} \times 5.5$

$$= 36.3 \text{ cm}$$

Put the decimal point 2 places from the right.

$$\begin{array}{r} 6 \text{ } 6 \\ \times 5 \text{ } 5 \\ \hline 330 \\ + 3300 \\ \hline 36 \text{ } 30 \end{array}$$

- (d) $5.061 \text{ kg} \times 2.1$

$$= 10.6281 \text{ kg}$$

Put the decimal point 4 places from the right.

$$\begin{array}{r} 5 \text{ } 061 \\ \times 2 \text{ } 1 \\ \hline 5 \text{ } 061 \\ + 10 \text{ } 1220 \\ \hline 10 \text{ } 6281 \end{array}$$

- (e) $9.61 \text{ mg} \times 1.2$

$$= 11.532 \text{ mg}$$

Put the decimal point 3 places from the right.

$$\begin{array}{r} 9 \text{ } 61 \\ \times 1 \text{ } 2 \\ \hline 1922 \\ + 9610 \\ \hline 11 \text{ } 532 \end{array}$$

- (f) $8.601 \text{ m} \times 5.2$

$$= 44.7252 \text{ m}$$

Put the decimal point 4 places from the right.

$$\begin{array}{r} 8 \text{ } 601 \\ \times 5 \text{ } 2 \\ \hline 17202 \\ + 430050 \\ \hline 44 \text{ } 7252 \end{array}$$

3. (a) $6.96 \text{ g} \div 1.6 = 4.35 \text{ g}$

$$\frac{696}{100} \div \frac{16}{10} = \frac{\overset{174}{\cancel{696}}}{\underset{\cancel{16}}{100}} \times \frac{\overset{10}{\cancel{10}}}{\underset{\cancel{16}}{100}} = \frac{87}{20} = 4.35 \text{ g}$$

(b) $10659 \text{ c}\ell \div 1.7 = 6270 \text{ c}\ell$

$$10659 \div \frac{17}{10} = \frac{\overset{627}{\cancel{10659}}}{\cancel{17}} \times \frac{10}{\cancel{17}} = 6270 \text{ c}\ell$$

(c) $89.68 \ell \div 0.12 = 747.33 \ell$

$$\frac{8968}{100} \div \frac{12}{100} = \frac{\overset{2242}{\cancel{8968}}}{\cancel{100}} \times \frac{\overset{100}{\cancel{100}}}{\underset{\cancel{12}}{100}} = \frac{2242}{3} = 747.33 \ell$$

(d) $93.285 \text{ m} \div 4.5 = 20.73 \text{ m}$

$$\frac{93285}{1000} \div \frac{45}{10} = \frac{\overset{18657}{\cancel{93285}}}{\cancel{1000}} \times \frac{\overset{10}{\cancel{10}}}{\underset{\cancel{45}}{100}} = \frac{18657}{100 \times 9} = 20.73 \text{ m}$$

(e) $109.2 \text{ kg} \div 0.13 = 840 \text{ kg}$

$$\frac{1092}{10} \div \frac{13}{100} = \frac{\overset{84}{\cancel{1092}}}{\cancel{10}} \times \frac{\overset{100}{\cancel{100}}}{\underset{\cancel{13}}{10}} = 840 \text{ kg}$$

(f) $81.62 \text{ m} \div 2.7 = 30.22 \text{ m}$

$$\frac{8162}{100} \div \frac{27}{10} = \frac{\overset{8162}{\cancel{8162}}}{\cancel{100}} \times \frac{\overset{10}{\cancel{10}}}{\underset{\cancel{27}}{10}} = \frac{8162}{10 \times 27} = 30.229 \text{ m}$$