SNBP International & Senior Secondary School, Chikhali, Pune.
Affiliation No. 1130703
Academic session 2023-24
NOTES CH.1 TERM 2

NAME:_____ DATE: _____
CLASS: IV SUBJECT: Maths
Prepared By: Poonam Waghela LESSON-1 Measurement

Preactivity :- lets get started from page no. 72

CHAPTER 1 MEASUREMENT

Exercise 1A

1. Fill in the blanks with the correct unit.

a. The length of my eraser is about 2 cm.

b. The height of a table is approximately 1 m.

Reasoning:

When measuring the length of an eraser, centimetres are used rather than millimetres because an eraser is more than a centimetre long. Choosing the appropriate unit of measurement is important because using the wrong unit can result in a number that is either too large or too small, which makes it difficult to estimate a quantity's magnitude. Now, centimetre and millimetre are very small units to measure the height of a table. So, we use another unit called metres for measuring the height of a table.

2. Solve the following.

a. 4 km = ____ m

b. $\frac{1}{2}$ of 6 m = ____ cm

c. $\frac{3}{4}$ of 16 dm = ____ mm

d. 5 km 23 m = ____ m

e. 7 m 25 cm = ____ cm

f. 3 m 4 cm = ____ cm

g. 7 km 3 dam 2 m = ___ m

h. 5629 m = _ km _ m

Solution:

a. $4 \text{ km} = 4 \times 1000 \text{ m} = 4000 \text{ m}$

b. $\frac{1}{2} \times 6 \text{ m} = 3 \text{ m} = 3 \times 100 \text{ cm} = 300 \text{ cm}$

c. $\frac{3}{4} \times 16 \text{ dm} = 3 \times 4 \text{ dm} = 12 \text{ dm} = 12 \times 100 \text{ mm} = 1200 \text{ mm}$

d. $5 \text{ km } 23 \text{ m} = 5 \times 1000 \text{ m} + 23 \text{ m} = 5023 \text{ m}$

e. $7\text{ m }25\text{ cm} = 7 \times 100\text{ cm} + 25\text{ cm} = 700 + 25\text{ cm}$
$= 725\text{ cm}$

f. $3\text{ m }4\text{ cm} = 3 \times 100\text{ cm} + 4\text{ cm} = 304\text{ cm}$

g. $7\text{ km }3\text{ dam }2\text{ m} = 7 \times 1000\text{ m} + 3 \times 10\text{ m} + 2\text{ m}$
$= 7000 + 30 + 2\text{ m} = 7032\text{ m}$

h. $5629\text{ m} = 5000\text{ m} + 629\text{ m} = \frac{5000}{1000}\text{ km }629\text{ m}$
$= 5\text{ km }629\text{ m}$

Exercise 1B

1. Fill in the blanks.

a. I bought 3 _____ apples from the market.

b. $7\text{ kg} =$ _____ g

c. $3\text{ kg }275\text{ g} =$ _____ g

d. $\frac{1}{3}$ of $4\text{ kg} =$ _____ g

e. $\frac{1}{5}$ of $9\text{ kg} =$ _____ g

f. $5\text{ kg }2\text{ hg }1\text{ dag }3\text{ g} =$ _____ g

g. $8\text{ kg }9\text{ hg }3\text{ g} =$ _____ g

h. $2350\text{ g} =$ _____ kg _____ g

i. $2359\text{ g} =$ _____ kg _____ g

Solution:

a. kg

b. $7\text{ kg} = 7 \times 1000\text{ g} = 7000\text{ g}$

c. $3\text{ kg }275\text{ g} = 3 \times 1000\text{ g} + 275\text{ g} = 3000 + 275\text{ g}$
$= 3275\text{ g}$

d. $\frac{1}{3}\text{ of }4\text{ kg} = \frac{1}{3} \times 4 \times 1000\text{ g} = \frac{1}{3} \times 4000\text{ g} = 1333.33\text{ g}$

e. $\frac{1}{5}\text{ of }9\text{ kg} = \frac{1}{5} \times 9 \times 1000\text{ g} = \frac{1}{5} \times 9000\text{ g} = 1800\text{ g}$

f. $5\text{ kg }2\text{ hg }1\text{ dag }3\text{ g} = 5 \times 1000\text{ g} + 2 \times 100\text{ g}$
$+ 1 \times 10\text{ g} + 3\text{ g} = 5000 + 200 + 10 + 3 = 5213\text{ g}$

g. $8\text{ kg }9\text{ hg }3\text{ g} = 8 \times 1000\text{ g} + 9 \times 100\text{ g} + 3\text{ g} = 8000$
$+ 900 + 3\text{ g} = 8903\text{ g}$

h. $2350\text{ g} = 2000\text{ g} + 350\text{ g} = \frac{2000}{1000}\text{ kg }350\text{ g}$
$= 2\text{ kg }350\text{ g}$

i. $2359\text{ g} = 2000\text{ g} + 359\text{ g} = \frac{2000}{1000}\text{ kg }359\text{ g} = 2\text{ kg }359\text{ g}$

Exercise 1C

1. Fill in the blanks.

a. This jar contains about _____ of milk.

b. A glass contains approximately _____ mℓ of water.

c. $9\text{ kℓ} =$ _____ ℓ

d. $6700\text{ ℓ} =$ _____ kℓ _____ ℓ

e. $\frac{1}{5}$ of $4\text{ kℓ} =$ _____ ℓ

f. $6701\text{ ℓ} =$ _____ kℓ _____ ℓ

g. $\frac{1}{4}$ of 5 hℓ = _____ mℓ

h. 9 kℓ 2 hℓ 3 ℓ = _____ ℓ

Solution:

a. 1 ℓ

b. 200 mℓ

c. $9\ k\ell = 9 \times 1000\ \ell = 9000\ \ell$

d. $6700\ \ell = 6000\ \ell + 700\ \ell = \frac{6000}{1000}\ k\ell\ 700\ \ell$
$= 6\ k\ell\ 700\ \ell$

e. $\frac{1}{5} \times 4\ k\ell = \frac{1}{5} \times 4 \times 1000\ \ell = \frac{1}{5} \times 4000\ \ell = 800\ \ell$

f. $6701\ \ell = 6000\ \ell + 701\ \ell = \frac{6000}{1000}\ k\ell\ 701\ \ell = 6\ k\ell\ 701\ \ell$

g. $\frac{1}{4} \times 5\ h\ell = \frac{1}{4} \times 5 \times 100000\ m\ell = \frac{1}{4} \times 500000\ m\ell$
$= 125000\ m\ell$

h. $9\ k\ell\ 2\ h\ell\ 3\ \ell = 9 \times 1000\ \ell + 2 \times 100\ \ell + 3\ \ell = 9203\ \ell$

Exercise 1D

1. Express the following in hg, dag and g.

a. 25.726 kg b. 9.31 kg c. 482.305 kg

Solution:

a. 25.726 kg = 25.726 × 10 hg = 257.26 hg;
25.726 kg = 25.726 × 100 dag = 2572.6 dag;
25.726 kg = 25.726 × 1000 g = 25726 g

b. 9.31 kg = 9.31 × 10 hg = 93.1 hg;
9.31 kg = 9.31 × 100 dag = 931 dag;
9.31 kg = 9.31 × 1000 g = 9310 g

c. 482.305 kg = 482.305 × 10 hg = 4823.05 hg;
482.305 kg = 482.305 × 100 dag = 48230.5 dag;
482.305 kg = 482.305 × 1000 g = 482305 g

2. Express the following in hm, dam and m.

a. 35.763 km b. 296.14 km c. 5.009 km

Solution:

a. 35.763 km = 35.763 × 10 hm = 357.63 hm;
35.763 km = 35.763 × 100 dam = 3576.3 dam;
35.763 km = 35.763 × 1000 m = 35763 m

b. 296.14 km = 296.14 × 10 hm = 2961.4 hm;
296.14 km = 296.14 × 100 dam = 29614 dam;
296.14 km = 296.14 × 1000 m = 296140 m

c. 5.009 km = 5.009 × 10 hm = 50.09 hm;
5.009 km = 5.009 × 100 dam = 500.9 dam;
5.009 km = 5.009 × 1000 m = 5009 m

3. Express the following in hℓ, daℓ and ℓ.

a. 19.68 kℓ b. 5.247 kℓ c. 625.803 kℓ

Solution:

a. $19.68\ k\ell = 19.68 \times 10\ h\ell = 196.8\ h\ell;$
$19.68\ k\ell = 19.68 \times 100\ da\ell = 1968\ da\ell;$
$19.68\ k\ell = 19.68 \times 1000\ \ell = 19680\ \ell$

b. $5.247\ k\ell = 5.247 \times 10\ h\ell = 52.47\ h\ell;$
$5.247\ k\ell = 5.247 \times 100\ da\ell = 524.7\ da\ell;$
$5.247\ k\ell = 5.247 \times 1000\ \ell = 5247\ \ell$

c. $625.803\ k\ell = 625.803 \times 10\ h\ell = 6258.03\ h\ell;$
$625.803\ k\ell = 625.803 \times 100\ da\ell = 62580.3\ da\ell;$
$625.803\ k\ell = 625.803 \times 1000\ \ell = 625803\ \ell$

4. Fill in the blanks.

a. 26 g 5 dg 7 cg 1 mg = _____ g

b. 35 ℓ 8 dℓ 2 cℓ 1 mℓ = _____ ℓ

c. 82 km 7 hm 3 dam 2 m = _____ km

d. 6 kg 9 hg 4 dag 1 g = _____ kg

e. 249.361 ℓ = _____ ℓ _____ dℓ _____ cℓ _____ mℓ

Solution:

a. 26 g 5 dg 7 cg 1 mg

$= (26 + \frac{5}{10} + \frac{7}{100} + \frac{1}{1000})\ g$

$= (26 + 0.5 + 0.07 + 0.001)\ g$

$= 26.571\ g$

b. 35 ℓ 8 dℓ 2 cℓ 1 mℓ

$= (35 + \frac{8}{10} + \frac{2}{100} + \frac{1}{1000})\ \ell$

$= (35 + 0.8 + 0.02 + 0.001)\ \ell$

$= 35.821\ \ell$

d. 6 kg 9 hg 4 dag 1 g

$= (6 + \frac{9}{10} + \frac{4}{100} + \frac{1}{1000})\ kg$

$= (6 + 0.9 + 0.04 + 0.001)\ kg$

$= 6.941\ kg$

e. $249.361\ \ell$

$= (249 + 0.3 + 0.06 + 0.001)\ \ell$

$= (249 + \frac{3}{10} + \frac{6}{100} + \frac{1}{1000})\ \ell$

$= 249\ \ell\ 3\ d\ell\ 6\ c\ell\ 1\ m\ell$

Exercise 1E

Solve the following word problems.

1. The weights of Ajay, Vijay and Sumit are 46 kg 375 g, 51 kg 7 g and 49 kg 25 g, respectively.
   a. Who is the heaviest among these three boys?
   b. Who is the lightest among these three boys?
   c. What is the total weight of these three boys?

   Solution: Weight of Ajay = 46 kg 375 g

   Weight of Vijay = 51 kg 7 g

   Weight of Sumit = 49 kg 25 g

   51 kg 7 g > 49 kg 25 g > 46 kg 375 g

carry	1	1			1	1		
		4	6	.	3	7	5	
		5	1	.	0	0	7	
+		4	9	.	0	2	5	
	1	4	6	.	4	0	7	

   a. Vijay (51 kg 7 g) is the heaviest among these three boys.
   b. Ajay (46 kg 375 g) is the lightest among these three boys.
   c. Total weight of the three boys
      = 46 kg 375 g + 51 kg 7 g + 49 kg 25 g
      = 46.375 kg + 51.007 kg + 49.025 kg
      = 146.407 kg
      = 146 kg 407 g

2. Bharat bought 10 kg 200 g of mangoes. Later he bought 5 kg 150 g of more mangoes. What is the total mass of mangoes that he bought?

   Solution: Mass of mangoes bought by Bharat
   = 10 kg 200 g + 5 kg 150 g
   = 10.200 + 5.150 kg
   = 15.350 kg
   = 15 kg 350 g

	1	0	.	2	0	0
+		5	.	1	5	0
	1	5	.	3	5	0

3. A tank had 35 ℓ 750 mℓ of water. The gardener used up 7 ℓ 200 mℓ of water. How much water is left in the tank?

   Solution:

   Total quantity of water in the tank = 35 ℓ 750 mℓ

   Quantity of water used by the gardener = 7 ℓ 200 mℓ

	2	15				
	~~3~~	~~5~~	.	7	5	0
−	0	7	.	2	0	0
	2	8	.	5	5	0

   Quantity of water left in the tank = 35 ℓ 750 mℓ − 7 ℓ 200 mℓ
   = 35.750 ℓ − 7.200 ℓ
   = 28.550 ℓ
   = 28 ℓ 550 mℓ

4. Out of a distance of 49 km 105 m, Krishna covered 11 km 795 m. How much distance is left to be covered?

   Solution: Total distance to be covered = 49 km 105 m

   Distance covered by Krishna = 11 km 795 m

   Distance left to be covered = 49 km 105 m − 11 km 795 m

			10			
		8	0	10		
	4	~~9~~	.	~~1~~	~~0~~	5
−	1	1	.	7	9	5
	3	7	.	3	1	0

= 49.105 km − 11.795 km

= 37.310 km

= 37 km 310 m

5. Farha bought 5 m 75 cm of a red cloth and 18 m 6 cm of a blue cloth. What is the total length of the clothes that she bought?

Solution:

Length of red cloth bought by Farha = 5 m 75 cm

Length of blue cloth bought by her = 18 m 6 cm

carry	1				1	
		5	.	7	5	
+	1	8	.	0	6	
	2	3	.	8	1	

Total length of red and blue cloth

= 5 m 75 cm + 18 m 6 cm

= 5.75 m + 18.06 m

= 23.81 m = 23 m 81 cm

6. Meher's weight is 49.750 kg and Zehra's weight is 32.520 kg. Whose weight is more and by how much?

Solution: Meher's weight = 49.750 kg

Zehra's weight = 32.520 kg

49.750 > 32.520 kg

	4	9	.	7	5	0
−	3	2	.	5	2	0
	1	7	.	2	3	0

Meher weighs more than Zehra by 49.750 − 32.520 = 17.230 kg

Therefore, Meher weighs 17 kg 230 g more than Zehra.

7. The capacity of two buckets of water is 15 ℓ 275 mℓ. If the capacity of one bucket is 10 ℓ 195 mℓ, what is the capacity of the second bucket?

Solution:

Total capacity of 2 buckets = 15 ℓ 275 mℓ

Capacity of one bucket = 10 ℓ 195 mℓ

				1	17	
	1	5	.	2	~~7~~	5
−	1	0	.	1	9	5
	0	5	.	0	8	0

Capacity of the other bucket = 15 ℓ 275 mℓ − 10 ℓ 195 mℓ

= 15.275 ℓ − 10.195 ℓ

= 5.080 ℓ

= 5 ℓ 80 mℓ

8. The distance from Mumbai to Lonavla is 82 km 725 m. The distance from Lonavla to Pune is 68 km 980 m. What is the total distance from Mumbai to Pune?

Solution:

Distance from Mumbai to Lonavla = 82 km 725 m

Distance from Lonavla to Pune = 68 km 980 m

Total Distance from Mumbai to Pune

= 82 km 725 m + 68 km 980 m

= 82.725 km + 68.980 km

= 151.705 km

= 151 km 705 m

carry	1	1	1			1		
		8	2	.	7	2	5	
+		6	8	.	9	8	0	
	1	5	1	.	7	0	5	

9. The mass of an empty box is 3 kg. If it is filled with toys, the mass becomes 12 kg 509 g. What is the mass of the toys?

Solution:

The mass of an empty box = 3 kg

The mass of box with toys
= 12 kg 509 g

Mass of toys = 12 kg 509 g – 3 kg
= 12.509 kg – 3 kg
= 9.509 kg
= 9 kg 509 g

	0	12				
	~~1~~	~~2~~	.	5	0	9
–	0	3	.	0	0	0
	0	9	.	5	0	9

10. Samira bought 3 ℓ 745 mℓ of orange juice, 4 ℓ 70 mℓ of guava juice and 5 ℓ 8 mℓ of pineapple juice. What is the total amount of juice that she bought?

Solution: Orange juice bought by Samira = 3 ℓ 745 mℓ

Gauva juice bought by her = 4 ℓ 70 mℓ

Pineapple juice bought by her = 5 ℓ 8 mℓ

Total juice bought by her
= 3 ℓ 745 mℓ + 4 ℓ 70 mℓ
+ 5 ℓ 8 mℓ
= 3.745 ℓ + 4.070 ℓ + 5.008 ℓ
= 12.823 ℓ
= 12 ℓ 823 mℓ

carry	1			1	1	
		3	.	7	4	5
		4	.	0	7	0
+		5	.	0	0	8
	1	2	.	8	2	3

Post Activity :- Write key concept from textbook of page no. 83

Subject Teacher HOD COORDINATOR PRINCIPAL