ODM EDUCATIONAL GROUP
Changing your Tomorrow

MONTH : NOVEMBER

SESSION : 1

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 16

CHAPTER NAME : MEASUREMENT

SUB-TOPIC : INTRODUCTION, MEASUREMENT OF LENGTH, WEIGHT AND CAPACITY. UNITS AND CONVERSION

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Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

RE-CAP

1. What is the length of your scale?
1. What is your weight?
1. How much water does your water bottle contain?
1. What is the distance between your house and your school?
1. What is your height?

We have already learned few basic things on measurement in our previous class.

Measurement

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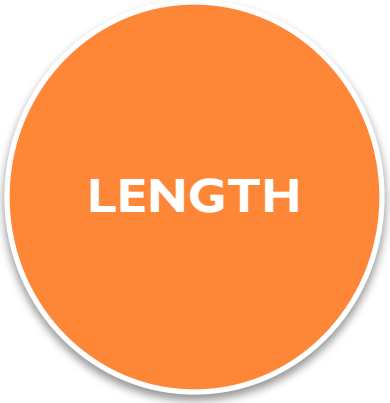

STANDARD UNIT IS METRE

STANDARD UNIT IS GRAM

STANDARD UNIT IS LITRE

MEASUREMENT OF LENGTH

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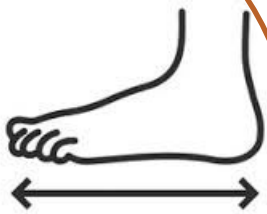
Height , length, breadth etc. are few words which denotes distance of any object.

However we use different units to measure different length.
Ex: we use cm to measure very small length and km to measure long length or distance.

Different tools are used to measure length are:



These are nonstandard units of measuring length

MEASUREMENT OF MASS

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Milligram, gram and kilogram etc are few word used to denote the weight of an object.

We use milligram and gram to measure less quantity whereas kilogram is used to measure heavy objects.

Different tools to measure mass -

1 kg = 1000 gram.

MEASUREMENT OF CAPACITY

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Millilitre, litre and kilo litre are few words which denote the capacity or volume of an object.

Different tools to measure mass -

1 litre= 1000 ml.

MEASUREMENT UNITS

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Units of Length		Units of mass		Units of capacity	
Millimetre (mm)	$\frac{1}{1000}$ of a metre	Milligram (mg)	$\frac{1}{1000}$ of a gram	Millilitre (mL)	$\frac{1}{1000}$ of a litre
Centimetre (cm)	$\frac{1}{100}$ of a metre	Centigram (cg)	$\frac{1}{100}$ of a gram	Centilitre (cL)	$\frac{1}{100}$ of a litre
Decimetre (dm)	$\frac{1}{10}$ of a metre	Decigram (dg)	$\frac{1}{10}$ of a gram	Decilitre (dL)	$\frac{1}{10}$ of a litre
A metre (m)	Standard unit	A gram (g)	Standard unit	A litre (L)	Standard unit
Decametre (dam)	10 metres	Decagram (dag)	10 grams	Decalitre (daL)	10 litres
Hectometre (hm)	100 metres	Hectogram (hg)	100 grams	Hectolitre (hL)	100 litres
Kilometre (km)	1000 metres	Kilogram (kg)	1000 grams	Kilolitre (kL)	1000 litres

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Metric System

King
Kilo-

Henry
Hecto-

Doesn't
Deka-

Usually
UNIT
- Meter
- Gram
- Liter

Drink
Deci-

Chocolate
Centi-

Milk
Milli-

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Use your creativity to make a metric staircase using half a chart paper.

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Students are able:

- To identify the units for measuring mass, length and capacity.
- To get a clear idea about conversion of units of measurement.

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SESSION : 2

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 16

CHAPTER NAME : MEASUREMENT

SUB-TOPIC : MEASUREMENT OF LENGTH AND CONVERSION.

EXERCISE- 16 A

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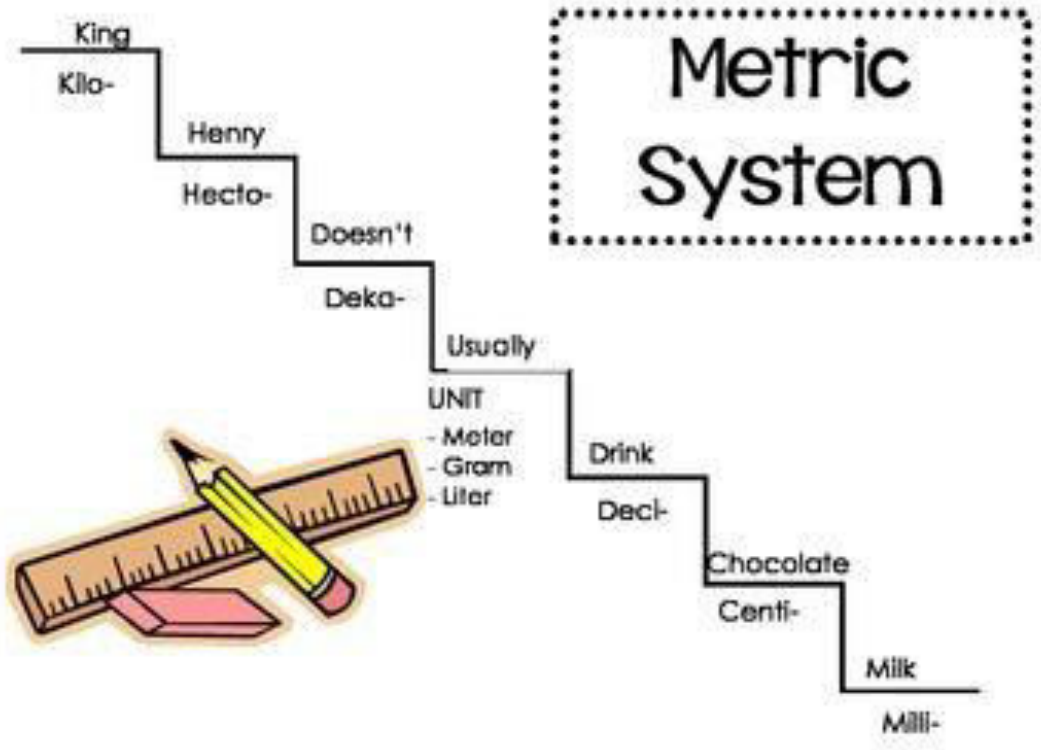
RE-CAP


Metric System
King
Kilo-
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Doesn't
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Usually
UNIT
- Meter
- Gram
- Liter
Drink
Deci-
Chocolate
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Milk
Milli-

Conversion of length

We use different units to measure different lengths.
Ex: We use cm to measure very small length and km to measure long length or distance.

The standard unit of measuring length is **METRE.**

POINTS TO REMEMBER	
1 KM	= 1000 m
1 Hectometre	= 100 m
1 decametre	= 10 m
	METRE
10 decimetre	= 1 metre
100 centimetre	= 1 metre
1000 millimetre	= 1 metre

Conversion of length

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POINTS TO REMEMBER

1 KM	= 1000 m
1 Hectometre	= 100 m
1 decametre	= 10 m
METRE	
10 decimetre	= 1 metre
100 centimetre	= 1 metre
1000 millimetre	= 1 metre

1. Convert 560 cm into dm and m

100 cm = 1 m

$$560 \text{ cm} = \frac{560}{100} = 5.6 \text{ m}$$

10 cm = 1 dm

$$560 \text{ cm} = \frac{560}{10}$$

= 56 dm

Conversion of length

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POINTS TO REMEMBER	
1 KM	= 1000 m
1 Hectometre	= 100 m
1 decametre	= 10 m
METRE	
10 decimetre	= 1 metre
100 centimetre	= 1 metre
1000 millimetre	= 1 metre

2. Convert 745m into dam, hm and km

10 m = 1 dam

$745m = \frac{745}{10}$

= 74.5 dam

100m = 1 hm

$745m = \frac{745}{100}$

= 7.45 hm

1000 m = 1km

$745\ m = \frac{745}{1000}$

= 0.745 km

Conversion of length

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Express in m dm cm and mm.

a. 1.133 m = **1 m 1 dm 3 cm 3 mm**

a. 23.036 m = **23 m 0 dm 3 cm 6 mm**

Using decimal express in metres.

a. 5m 7dm 8cm 9mm = **5.789 m**

a. 7m 6cm 1mm = **7.061 m**

kilo-	hecto-	deka-	(unit)	deci-	centi-	milli-

EXERCISE 16

A

1. Express in m , dm , cm and mm

a. 8.425 m = **8m 4 dm 2 cm 5 mm.**

a. 7.75 m = **7m 7 dm 5 cm**

a. 27.078 m = **27m 7 cm 8 mm.**

a. 52.064 m = **52m 6cm 4 mm.**

2. Using decimal express in metres

a. 8m 6 dm 5 cm 2 mm. **= 8.652 m**

b. 10m 8 dm 6 cm 5 mm. **= 10.865 m**

c. 15m 8dm 1cm 9 mm. **= 15. 819 m**

d. 1m 3dm 7cm. **= 1.37 m**

EXERCISE 16

A

3. Express in km , hm , dam and m

a. 2.355 km = **2 km 3 hm 5 dam 5 m.**

a. 8.162 km = **8 km 1hm 6 dam 2 m**

a. 30.750 km = **30 km 7 hm 5 dam**

a. 35.250 km = **35 km 2hm 5 dam.**

4. Using decimal express in km.

a. 1 km 1 hm 2 dam 9 m. **= 1. 129 km**

b. 7 km 8 hm 2 dam 2 m. **= 7.822 km**

c. 50 km 8dam 7 m. **= 50. 087 km**

d. 24 km 5 hm 6 m. **= 24.506 km**

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Complete Exercise 16 A the 1st four of q.no.1 to 4

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Students are able:

- To identify the units for measuring length
- To get a clear idea about conversion of units of measurement.

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THANKING YOU

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- SESSION : 3

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 16

CHAPTER NAME : MEASUREMENT

SUB-TOPIC : MEASUREMENT OF MASS AND CONVERSION.

EXERCISE- 16 A

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RE-CAP

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Metric System

King
Kilo-

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Doesn't
Deka-

Usually
UNIT
- Meter
- Gram
- Liter

Drink
Deci-

Chocolate
Centi-

Milk
Milli-

Conversion of mass

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We use different units to measure different mass or weight.
Ex: We use milligram and gram to measure less quantities and kg to measure heavy or more quantities.

The standard unit of measuring mass is **GRAM.**

POINTS TO REMEMBER	
1 Kg	= 1000 g
1 Hectogram	= 100 g
1 decagram	= 10 g
	GRAM
10 decigram	= 1 g
100 centigram	= 1 g
1000 milligram	= 1 g

Measuring Mass

Conversion of mass

ODM EDUCATIONAL GROUP
Changing your Tomorrow

POINTS TO REMEMBER

1 Kg	= 1000 g
1 Hectogram	= 100 g
1 decagram	= 10 g
GRAM	
10 decigram	= 1 g
100 centigram	= 1 g
1000 milligram	= 1 g

1. Convert 7285 g into dag, hg and kg.

10 g = 1 dag

$7285\ g = \frac{7285}{10} = 728.5$ dag

100 g = 1 hg

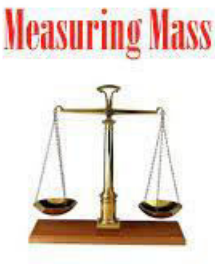
$7285\ g = \frac{7285}{100}$

$= 72.85$ hg

1000 g = 1 kg

$7285\ g = \frac{7285}{1000}$

$= 7.285$ kg



EXERCISE 16

A

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5. Express in kg, hg , dag and g

a. 3.127 kg = **3 kg 1 hg 2 dag 7 g.**

a. 16.485 kg = **16 kg 4 hg 8 dag 5 g**

a. 0. 758 kg= **7 hg 5 dag 8g**

a. 0.48 kg = **4 hg 8 dag**

6. Using decimal express in kg

a. 2 kg 2hg 7 dag 2 g **= 2. 272 kg**

b. 5 kg 5 hg 1 dag 5 g. **= 5.515 kg**

c. 7 kg 2 dag 7 g. **= 7 . 027 kg**

d. 5 hg 3 g **= 0.503 g**

Measuring Mass

EXERCISE 16

A

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7. Express in gm, dg , cg and mg

a. 3. 164 g = **3 gm 1 dg 6cg 4mg.**

a. 5.750 g = **5 gm 7 dg 5cg**

a. 0.5 g = **5 dg**

a. 0.185 g = **1 dg 8 cg 5mg**

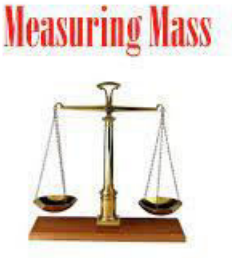
8. Using decimal express in grams

a. 6 g 7 dg 2 mg **= 6. 702 g**

b. 2 g 2 dg 7 cg 1mg **= 2.271 g**

c. 5 dg 7 cg 2 mg **= 0.572 g**

d. 6 cg 6 mg **= 0.066 g**



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Complete Exercise 16 A the 1st four of q.no. 5 to 8

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Students are able:

- To identify the units for measuring mass.
- To get a clear idea about conversion of units of measurement.

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- SESSION : 4

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 16

CHAPTER NAME : MEASUREMENT

SUB-TOPIC : MEASUREMENT OF CAPACITY AND CONVERSION.

EXERCISE- 16 A

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RE-CAP

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Metric System

King
Kilo-

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Doesn't
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Usually
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- Meter
- Gram
- Liter

Drink
Deci-

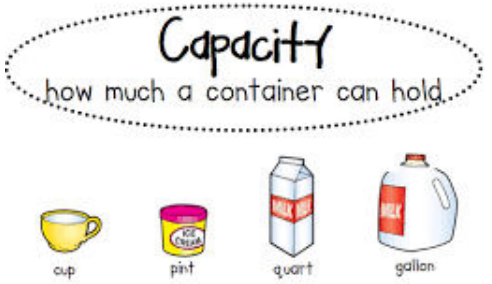
Chocolate
Centi-

Milk
Milli-

Conversion of capacity

We use different units to measure different capacities.
Ex: We use millilitre and litre to measure less capacity and kilo litre to measure more quantities.

The standard unit of measuring capacity is **LITRE.**



EXERCISE 16 A

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9. Express in L, dL , cL and mL

a. 6.452 L = **6 L 4dL 5cL 2mL**

a. 8.616 L= **8 L 6dL 1cL 6mL**

a. 0.5 L= **5dL**

a. 0.25 L = **2dL 5cL**

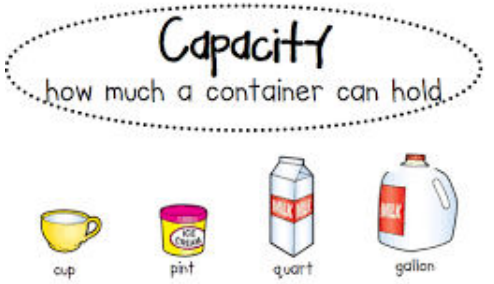
10. Using decimal express in litres

a. 6L 6dL 7cL 2mL **= 6.672 L**

b. 20 L 8 dL **= 20.8 L**

c. 5L 1dL 5cL 9mL **= 5.159 L**

d. 2cL 5mL **= 0.025 L**



EXERCISE 16

A

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11. Express in kL, hL , daL and L

a. 9.129 kL = 9kL 1hL 2daL 9L

a. 0.775 kL= 7hL 7daL 5L

a. 0.05 kL= 5da L

a. 1.1 kL = 1kL 1hL

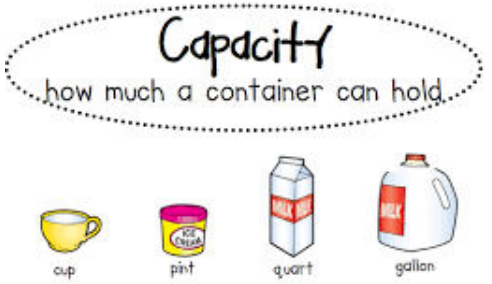
12. Using decimal express in kL

a. 3kL 5hL 3daL 2L = 3.532 kL

b. 6kL 7L = 6.007kL

c. 8kL 5daL = 8.05 kL

d. 15kL 3hL 7daL 5L = 15.375 kL



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Complete Exercise 16 A the 1st four of q.no. 9 to 12

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Students are able:

- To identify the units for measuring capacity.
- To get a clear idea about conversion of units of measurement.

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SESSION : 5

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 16

CHAPTER NAME : MEASUREMENT

SUB-TOPIC : EXPRESS METRIC UNITS USING DECIMAL NOTATIONS

EXERCISE- 16 A

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EXPRESSING MEASURING UNITS IN DECIMAL.

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Express the following in km and kg

a. 2563 m =

1 km = 1000 m

$$2563 \text{ m} = \frac{2563}{1000}$$

= 2 . 563 km

a. 9087 g =

1 kg = 1000 g

$$9087 \text{ g} = \frac{9087}{1000}$$

= 9 . 087 kg

Express the following in m and cm

a. 253 cm =

1 m = 100 cm

$$253 \text{ cm} = \frac{253}{100}$$

= 2 . 53 m

a. 9.23 m =

1 m = 100 cm

9.23 m = 9.23 x 100

= 923 cm

EXERCISE 16

A

13. Express in kg using decimal notation.

a. 4153 g = 4153 ÷ 1000 = **4 .153 kg**

a. 3000 g= 3000 ÷ 1000 = **3 kg**

a. 3856 g = 3856 ÷ 1000 = **3 . 856 kg**

a. 31636 g = 31636 ÷ 1000 = **31.636 kg**

14. Express in g

a. 4.3 kg = 4.3 x 1000 = **4300 g**

b. 19.63 kg = 19.63 x 1000 = **19630 g**

c. 35.365 kg = 35.365 x 1000 = **35365 g**

d. 36.3 kg = 36.3 x 1000 = **36300 g**

EXERCISE 16

A

15. Express in km using decimal notation.

a. 365 m = 365 ÷ 1000 = **0. 365 km**

a. 660 m = 660 ÷ 1000 = **0.66 km**

a. 99 m = 99 ÷ 1000 = **0. 099 km**

a. 588 m = 588 ÷ 1000 = **0.588 km**

16. Express in m

a. 1.5 km = 1.5 x 1000 = **1500 m**

b. 2.25 km = 2.25 x 1000 = **2250 m**

c. 5.75 km = 5.75 x 1000 = **5750 m**

d. 0.8 km = 0.8 x 1000 = **800 m**

EXERCISE 16

A

17. Express in m using decimal notation.

a. 50 cm = 50 ÷ 100 = **0. 5 m**

a. 100 cm = 100 ÷ 100 = **1 m**

a. 125 cm = 125 ÷ 100 = **1. 25 m**

a. 500 cm = 500 ÷ 100 = **5 m**

18. Express in cm

a. 0 . 15 m = 0.15 x 100 = **15 cm**

b. 0.05 m = 0.05 x 100 = **5 cm**

c. 2.75 m = 2.75 x 100 = **275 cm**

d. 3.25 m = 3.25 x 100 = **325 cm**

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Complete Exercise 16 A the 1st four of q.no. 13 to 18

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Students are able:

- To identify the units for measurement..
- To express the units of measurement in decimal.

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- SESSION : 6

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 16

CHAPTER NAME : MEASUREMENT

SUB-TOPIC : FUNDAMENTAL OPERATIONS IN METRIC MEASURE

EXERCISE 16 B

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RE-CAP

Expressing units in decimal notation:

a.56 kg 7 hg 3 dag 2 g = 56. 7 3 2 kg

b. 2 dm 8 m = 0. 2 0 8 m

c. 5 g 5 cg 7 mg = 5. 0 5 7 g

d. 6 kL 6hL 2 L = 6. 6 0 2 kL

e. 8 m 9 dm 4 cm 1 mm = 8 . 9 4 1 m

As we have already learned about expressing units in decimal , Today we'll solve operations in metric measure.

EXPRESSING IN DECIMAL AND OPERATIONS.

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1. Express in decimal then add

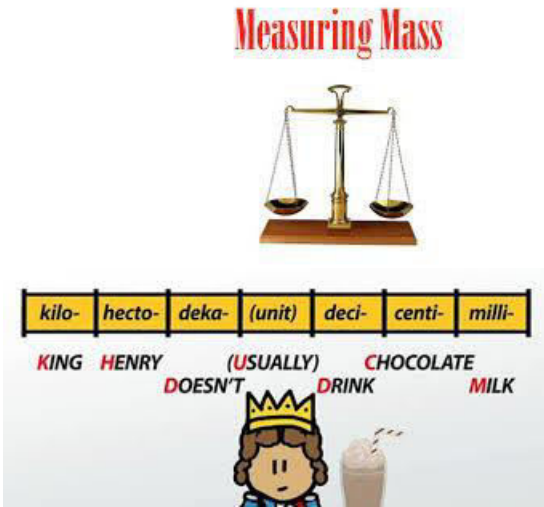
a. 6 m 7 dm 2 cm 5 mm : 2 dm 3 cm 1 mm

$$\begin{array}{r} 6.725 \\ +\ 0.231 \\ \hline 6.956 \end{array}$$

2. Express in decimal and subtract

a. 100 kL 265L from 326 kl 003 l

$$\begin{array}{r} 326.003 \\ -\ 100.265 \\ \hline 225.738 \end{array}$$



EXPRESSING IN DECIMAL AND OPERATIONS.

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3 . Express in decimal then multiply

a. 6 hm 5 dam 8 m by 23

$$\begin{array}{r} 0.658 \\ \times \quad 23 \\ \hline 1.974 \\ 13.160 \\ \hline 15.134 \end{array}$$

Measuring Mass

EXERCISE 16 B

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1. Express in decimal and then add

a. 2 km 6 hm 4 dam 2 m : 8 km 8 dam : 10 km 6 hm 2 dam 8 m

$$\begin{array}{r} 2.642 \\ +\ 8.080 \\ \hline 10.628 \end{array}$$

21.350

Ans. **21 . 350 km**

b. 6 m 7 dm 2 cm 5 mm : 8 m 8 dm 6 cm 6 mm : 10 m 5 mm

$$\begin{array}{r} 6.725 \\ +\ 8.866 \\ \hline 10.005 \end{array}$$

25.596

Ans. **25 . 596 m**

EXERCISE 16 B

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1. Express in decimal and then add

c. 6 kg 7 hg 5 dag 6 g : 8 hg 7 g : 4 kg 2 hg 2 g : 10 kg

$$\begin{array}{r} 6.756 \\ +\ 0.807 \\ 4.202 \\ 10.000 \\ \hline 21.765 \end{array}$$

Ans. **21 . 765 kg**

EXERCISE 16 B

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2. Express in decimal and then subtract

a. 25 km 625 m from 50 km 50 m

```
  5 0 . 0 5 0
- 2 5 . 6 2 5
-------------
  2 4 . 4 2 5
```

Ans. **24 . 425 km**

b. 66 kg 725 g from 92 kg 6 hg 8 g

```
  9 2 . 6 0 8
- 6 6 . 7 2 5
-------------
  2 5 . 8 8 3
```

Ans. **25 . 883 kg**

EXERCISE 16 B

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2. Express in decimal and then subtract

c. 125 kL 615 L from 145 kL 220 L

```
  145.220
- 125.615
```

19.605

Ans. **19 . 605 kL**

EXERCISE 16 B

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3 . Express in decimal and then multiply

a. 7 km 2 hm 7 dam 5 m by 48

$$\begin{array}{r} 7.275 \\ \times \quad 48 \\ \hline 5820 \\ 29100 \\ \hline 349.20 \end{array}$$

Ans. **349 . 2 km**

b. 25 kg 620 g by 27

$$\begin{array}{r} 25.620 \\ \times \quad 27 \\ \hline 179340 \\ 512400 \\ \hline 691.740 \end{array}$$

Ans. **691 . 740 kg**

EXERCISE 16 B

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Changing your Tomorrow

3 . Express in decimal and then multiply

c. 6 hm 4 dam 6 m by 72

$$\begin{array}{r} 0.646 \\ \times \quad 72 \\ \hline 1292 \\ 45220 \\ \hline 46.512 \end{array}$$

Ans. **46 km 512 m**

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Complete Exercise 16 B q.no. 1 to 3

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Students are able:

- To identify the units for measurement..
- To express the units of measurement in decimal.
- To add, subtract and multiply the units of measurement with decimal notation.

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- SESSION : 7

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 16

CHAPTER NAME : MEASUREMENT

SUB-TOPIC : FUNDAMENTAL OPERATIONS IN METRIC MEASURE

EXERCISE 16 B

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EXERCISE 16 B

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4 . Express in decimal and then divide

a. 591 kg 7 hg 3 dag 6 g by 68

= 519.736 ÷ 68

```
      8  .  7  0  2
   ┌──────────────
68 │ 5  9  1  .  7  3  6
     5  4  4
     ──────
        4  7  7
        4  7  6
        ──────
              1  3
                 0
              ─────
              1  3  6
              1  3  6
              ──────
                 0
```

Ans. **8 . 702 kg**

EXERCISE 16 B

ODM EDUCATIONAL GROUP
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4 . Express in decimal and then divide

b. 49 m 4 dm 6 cm 4 mm by 54

= 49 . 464 ÷ 54

```
        0 . 9 1 6
    ┌──────────
54  │ 4 9 . 4 6
    │ 40
    │ ──
    │ 4 9 4
    │ 4 8 6
    │ ─────
    │     8 6
    │     5 4
    │     ───
    │     3 2 4
    │     3 2 4
    │     ─────
    │         0
```

Ans. **0. 916 m**

EXERCISE 16 B

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4 . Express in decimal and then divide

c. 936 kL 312 L by 39 [answer in litres.]

= 936 . 312 ÷ 39

```
        2 4 .  0  0  8
    ┌──────────────────
39  │ 9 3 6 . 3 1 2
      7 8
    ─────
      1 5 6
      1 5 6
    ─────────
          0 3
            0
        ─────
            3 1
              0
        ─────────
              3 1 2
              3 1 2
        ─────────────
                  0
```

1000 kL = 1 L

24 kL 008 L =

24 X 1000 + 008

= 24008 L

Ans. **24008 L**

EXERCISE 16 B

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4 . Express in decimal and then divide

d. 3831 m 24 cm by 84

= 3831 . 24 ÷ 84

```
        4 5 .  6 1
    ┌──────────────
84  │ 3 8 3 1 . 2 4
      3 3 6
      ─────
        4 7 1
        4 2 0
        ─────
            5 1 2
            5 0 4
            ─────
                8 4
                8 4
                ───
                0
```

Ans. **45 . 61 m**

EXERCISE 16 B

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5 .

a. Subtract 39.56 kg from 100 kg

$$\begin{array}{r} {}^{9}\cancel{1}{}^{9}\cancel{0}{}^{9}\cancel{0}\,{}^{10}\cancel{0} \\ -\ 3\ 9\ .\ 5\ 6 \\ \hline 6\ 0\ .\ 4\ 4 \end{array}$$

Ans. **60 . 44 kg**

a. By how much 25.36 m is more than 15.85 m ?

The difference between 25 . 36 m and 15.85 m is

$$\begin{array}{r} 2\ 5\ .\ 3\ 6 \\ -\ 1\ 5\ .\ 8\ 5 \\ \hline 9\ .\ 5\ 1 \end{array}$$

So, 25.36 m is **9.51 m** more than 15 .85 m.

EXERCISE 16 B

5 .

c. By how much is the sum of 27.35kl and 50.83 kl less than the sum of 100 kl and 16.32 kl?

The sum of 27.35 kl and 50 .83 kl =

$$\begin{array}{r} 27.35 \\ +\ 50.83 \\ \hline 78.18 \end{array}$$

The sum of 100 kl and 16.32 kl =

$$\begin{array}{r} 100.00 \\ +\ 16.32 \\ \hline 116.32 \end{array}$$

The difference between the sums=

$$\begin{array}{r} 116.32 \\ -\ 78.18 \\ \hline 38.14 \end{array}$$

So, the sum of 27.35kl and 50.83 kL is **38 . 14 kL** less than the sum of 100 kL and 16.32 kL.

EXERCISE 16 B

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6. Multiply 925 g by 125 , give your answer in kg.

$$
\begin{array}{rr}
 & 9\ 2\ 5 \\
\times & 1\ 2\ 5 \\
\hline
 & 4\ 6\ 2\ 5 \\
1 & 8\ 5\ 0\ 0 \\
9 & 2\ 5\ 0\ 0 \\
\hline
\multicolumn{2}{c}{\boxed{1\ 1\ 5\ 6\ 2\ 5}}
\end{array}
$$

1000 g = 1 kg

115625 g = 115625 ÷ 1000 = **115 . 625 kg**

EXERCISE 16 B

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7. Divide 4.224 km by 96. Give your answer in metres.

$$
\begin{array}{r|l}
 & 0.044 \\
\hline
96 & 4.224 \\
 & 0 \\
\hline
 & 42 \\
 & 0 \\
\hline
 & 422 \\
 & 384 \\
\hline
 & 384 \\
 & 384 \\
\hline
 & 0
\end{array}
$$

1 km = 1000 m

0.044 km = 0.044 x 1000= **44 m**

EXERCISE 16 B

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8. Divide 0.175 L by 25. Give your answer in mL.

$$
\begin{array}{r}
0.007 \\
25 \overline{)\,0.175} \\
0 \\
\hline
01 \\
0 \\
\hline
17 \\
0 \\
\hline
175 \\
175 \\
\hline
0
\end{array}
$$

1 L = 1000 mL

0.007 L = 0.007 x 1000= **7 mL**

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Complete Exercise 16 B Q.No 4 to 8 in the copy.

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Students are able:

- To identify the units for measurement..
- To express the units of measurement in decimal.
- To add, subtract ,multiply and divide the units of measurement with decimal notation.

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SESSION : 8

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 16

CHAPTER NAME : MEASUREMENT

SUB-TOPIC : WORD PROBLEMS IN DECIMAL

Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

Write in notebook

COMPETENCY BASED QUESTIONS (SAFAL)

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To make fruit salad for her birthday , Ramya went to market to buy some fruits. There she saw a lot of different seasonal fruits. After thinking for a while she decided and bought 2. 575 kg apples , 700 g grapes, 950 g bananas, 567 g strawberries. After reaching home she noticed that the fruit seller has packed 1 kg of grapes.

1. What is the total quantity of fruits she bought?
2. What will you do if you get more than what you've paid for?
3. What are some seasonal fruits?

Solution

1. Apples bought = 2 . 575 kg

Grapes = 0.700 g

Bananas = 0.950 g

Strawberries = 0. 567 g

Total quantity of fruit = **4 kg 9 7 4 g**

$$\begin{array}{r} 2.575 \\ 0.700 \\ +0.950 \\ 0.567 \\ \hline 4.792 \end{array}$$

Write in notebook

COMPETENCY BASED QUESTIONS (SAFAL)

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Joy stays in Kalarahanga. His mother drops him to school everyday by travelling a distance of 4 km 325 m. One day his mother's friend Mrs. Lisa visited their house. After a while they came to know that her daughter Anna also studies in Joy's school. Then they decided to do car pooling. Joy's mother has to travel 2 km 075 m more to drop the children to school.

1. How much distance will Joy's mother travel to drop the children to the school

1. Write any 2 advantages of car pooling.

1. Distance from house to school = 4 . 3 2 5 k m

More distance need to travel = 2 . 0 7 5 k m

Total distance need to travel to drop both the children = **6 Km 400 m**

$$\begin{array}{r} 4.325 \\ +\ 2.075 \\ \hline 6.400 \end{array}$$

2. i. Car pooling saves fuel.
ii. It saves money.

EXERCISE 16 C

1. Three drums can hold 16.62kl, 25.25 kl and 75.68 kl of petrol respectively. How much petrol can they hold in all?

Ans:

The capacity of three petrol drums = 16 . 62 kL

25. 25 kL

75 . 68 kL

Total petrol they can hold = 16 . 62 kL + 25. 25 kL + 75 . 68 kL

= 117 . 55 kL

$$\begin{array}{r} 16.62 \\ +\ 25.25 \\ 75.68 \\ \hline 117.55 \end{array}$$

Therefore , the three drums can hold **117.55 kL** petrol.

EXERCISE 16 C

2. If 36 tins of oil weighs 567 kg. What is the weight of 1 tin? Also find the weight of 25 tins.

Ans.

Weight of 36 tins of oil = 567 kg

Weight of 1 tin = 567 kg ÷ 36 = **15.75 kg**

Weight of 25 tins = 15.75 kg x 25 = **393.75 kg**


```
      15.75
   ____________
36 | 567.00
     36
     ---
     207
     180
     ---
      270
      252
      ---
       180
       180
       ---
         0
```

```
    15.75
X     25
-------
   7875
  31500
-------
  393.75
```

Therefore the weight of 1 tin is 15.75 kg and 25 tins is 393.75 kg.

EXERCISE 16 C

3. A long sleeved shirt requires 2 m 6 dm 5 cm of cloth. How much cloth will be required for 15 such shirts? Give your answer in metre.

Ans.

Cloth required for 1 shirt = 2 m 6 dm 5 cm

Cloth required for 15 shirts = 2 . 65 x 15 **= 39 . 75 m**

$$\begin{array}{r} 2.65 \\ \times \quad 15 \\ \hline 1325 \\ 2650 \\ \hline 39.75 \end{array}$$

Thus to make 15 shirts 39. 75 m cloth is required.

EXERCISE 16 C

4. A car in a journey requires 6.38 L of petrol per hour. How many litres of petrol will be required for a journey of 7. 25 hours ?

Ans.

Petrol required for 1 hr of journey = 6.38 L

Petrol required for 7. 25 hours = 6 . 38 x 7 . 25

= **46 . 255 L**

$$\begin{array}{r} 6.38 \\ \times\ 7.25 \\ \hline 3190 \\ 12760 \\ 446600 \\ \hline 46.2550 \end{array}$$

Thus 46.255 litres of petrol is required for the journey of 7.25 hours.

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Complete Exercise 16 C Q.No 5 & 6 in the copy.

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- **To identify the units for measurement..**
- **To express the units of measurement in decimal.**
- **To add, subtract ,multiply and divide the units of measurement with decimal notation.**

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SESSION : 9

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 16

CHAPTER NAME : MEASUREMENT

SUB-TOPIC : WORD PROBLEMS IN DECIMAL

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Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

EXERCISE 16 C

7. A jar contains 5 litres of oil. 6 bottles each of capacity 8 dl are filled with oil from the jar. How much oil is left in the jar?

Ans.

Oil in the jar = 5 L

Oil in 6 bottles each of 8 dl = 6 x 0. 8 = **4 . 8 L**

Oil in the jar left = 5 L – 4 . 8 L = **0 . 2 L**

= 2 dL

Thus 2 dL oil is left in the jar.

$$\begin{array}{r} 0.8 \\ \times \quad 6 \\ \hline 4.8 \end{array}$$

$$\begin{array}{r} 5.0 \\ -\ 4.8 \\ \hline 0.2 \end{array}$$

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8. A rope is 15 m 60 cm long. How many pieces each measuring 25 cm long can be cut from it? Find the length of remaining rope.

Ans.

Length of the rope = 15 m 60 cm = 1560 cm

No. of pieces of 25 cm = 1560 ÷ 25 = **62 pieces.**

The length of rope remained = **10 cm**

If 1 m = 100 cm
15 m 60 cm =
15 x 100 + 60 =
1560 cm

```
      6 2
   ┌─────
25 │ 1 5 6 0
     1 5 0
   ─────
       6 0
       5 0
   ─────
       1 0
```

Therefore 62 pieces of 25 cm each can be cut from the rope and 10 cm will remain extra.

9. How many 0.20 litre cups can be filled up from a 5 litre jug of lemonade?

Ans.

Lemonade in the jug = 5 L = 50 dL

No. Of cups of 0 . 20 L = 5 L ÷ 0.20 L

= 50 dL ÷ 2 dL **= 25 cups**

Thus 25 cups of 0.20 L can be filled up from 5L jug of lemonade.

```
  2 5
2 | 5 0
    4
    ↓
  1 0
  1 0
    0
```

EXERCISE 16 C

10. John gives ₹ 3565 for 50 litres of petrol. Find the cost of petrol per litre. Also find the cost of 30 litres of petrol.

Ans.

Cost of 50 L petrol = ₹ 3565

Cost of 1 L petrol = 3565 ÷ 50 = ₹ 71 . 3

Cost of 30 L petrol = 30 x 71 . 3 = ₹ **2,139**

So the cost of petrol per litre is ₹ 71 . 3 and the cost of 30 L of petrol is ₹ 2, 139 .

```
      7 1 . 3
   ┌─────────
5 0 │ 3 5 6 5 . 0
      3 5 0
      -------
        6 5
        5 0
        ---
        1 5 0
        1 5 0
        -----
            0
```

```
    7 1 . 3
X     3 0
-----------
  2 1 3 9
```

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Complete Exercise 16 C in the copy.

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Students are able:

- **To identify the units for measurement..**
- **To express the units of measurement in decimal.**
- **To add, subtract ,multiply and divide the units of measurement with decimal notation.**
- **To use the measurement in daily life.**

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