**1075 LOVU SANGAM SCHOOL**
**LESSON NOTES**

**SUBJECT: MATHS** **WORKSHEET: 01/2021** **YEAR: 7**

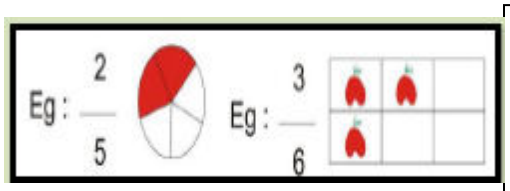
| | |
|---|---|
| **STRAND** | NUMBER AND NUMERATION |
| **SUB- STRAND** | FRACTIONS |
| **CONTENT LEARNING OUTCOME** | Demonstrate and represent fractions as parts of whole quantity, mass, length or a dollar |

## EXPLORING FRACTIONS

### What is a Fraction?

- A Fraction is a way of representing division of a **whole** into **part** or when an object is divided into a number of equal parts then each part is a **Fraction**.
- Each Fraction has 2 parts;

Numerator is the number of parts chosen or divided into
Denominator is the Total Number of Parts




**Note**: The denominator can never be 0 because we cannot divide by 0.

### FRACTIONS TYPE

- There are 3 types of Fractions

| PROPER FRACTION | IMPROPER FRACTION | MIXED NUMBER |
|---|---|---|
| Numerator < Denominator | Numerator > Denominator<br>Numerator = Denominator | Mixed Number has a whole number and a Proper Fraction. For example, $2\frac{1}{5}$ or $125\frac{18}{20}$ |
| Proper Fraction is where the Numerator is smaller than the Denominator. For example, $\frac{1}{5}$ $\frac{8}{20}$ $\frac{4}{7}$ $\frac{6}{15}$ $\frac{180}{205}$ | Improper Fraction is where the Numerator is bigger than or equal to the Denominator. For example, $\frac{18}{2}$ or $\frac{20}{20}$ | |

## SHOWING FRACTIONS AS A PERCENTAGE

- A percentage is a convenient way of writing fractions that have a denominator of 100. 'Percent' written as "%" means 'per 100' or 'for every 100'.
  Eg. $7\ \% = \frac{7}{100}$

- To change fractions to percentages, first change the denominator of the fraction to 100.
  Eg. $\frac{3}{20} \times \frac{5}{5} = \frac{15}{100} = \mathbf{15\%}$

- To write a percentage as a Fraction or Mixed Number, first write it as a fraction with denominator 100, then simplify (make it smaller)

Eg. $125\% = \frac{125}{100} \div \frac{5}{5} = \frac{25}{20} \div \frac{5}{5} = \mathbf{\frac{5}{4}}$ Now, let's change this to Mixed Number; $\mathbf{\frac{5}{4}}$

$$\begin{array}{r} 1\text{R } 1 \\ 4\overline{)\,5} \\ -\,4 \\ \hline 1 \end{array}$$

$\mathbf{\frac{5}{4} = 1\frac{1}{4}}$

## FRACTION OF A QUANTITY

**Examples**:

- We need to change to smaller units to make the working easier.

1. Find $\frac{3}{5}$ of a meter (1m = 100cm)

$\frac{3}{5}$ of a meter $= \frac{3}{5} \times \frac{100\text{cm}}{1}$

$= \frac{300\text{cm}}{5}$

2. What fraction of an hour is 40 minutes?

(1 Hour = 60 minutes)

So, we get, $\frac{40\text{minutes}}{60\text{ minutes}}$ (Simplify the fraction always)

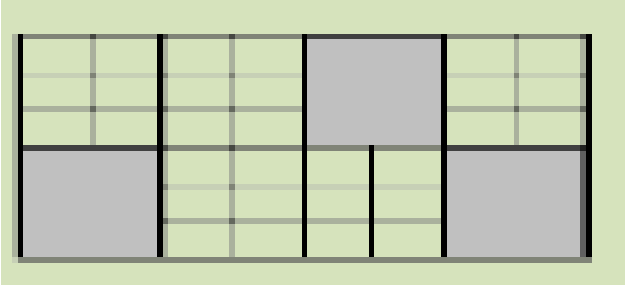
$\frac{40\text{minutes}}{60\text{ minutes}} = \frac{4}{6} \div \frac{2}{2} = \mathbf{\frac{2}{3}}$

**= 60 cm**

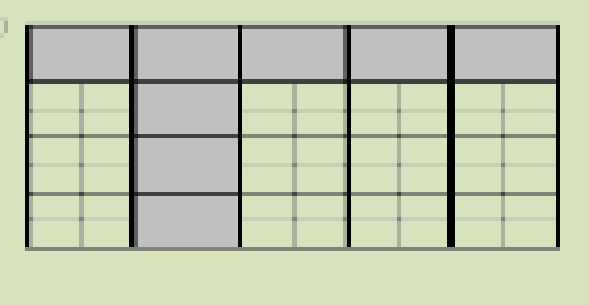
## ACTIVITIES

1. What fraction of each figure is shaded?

a)

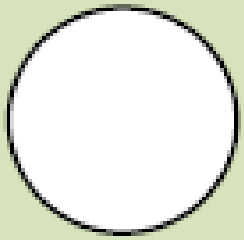


b)



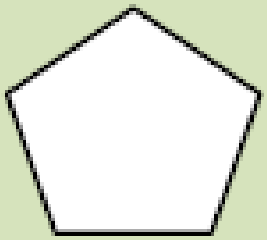
2. Copy the figure and shade the fraction indicated.

a)



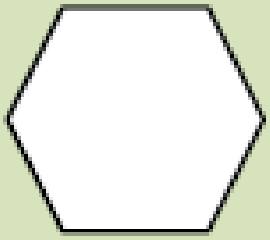
$\frac{3}{4}$

b)



$\frac{2}{5}$

c)



$\frac{1}{6}$

3. Change these percentages to fractions.

a) 33% b) 13% c) 25% d) 5%

4. Change each percentage to a mixed number.

a) 250% b) 140% c) 109%

5. Express each as a percentage

a) $\frac{1}{20}$ b) $\frac{16}{50}$

6. Find:

a) $\frac{1}{4}$ of an hour b) $\frac{1}{3}$ of 3m

7. What fraction is?

a) 50c of $1

b) 60cm of 2m