### LESSON NOTES FOR MATHEMATICS P.4 TERM II 2019

### WEEK FIVE LESSON 1

- TOPIC : FRACTIONS
- SUB TOPIC : NAMING AND SHADING FRACTIONS
- CONTENT :
- Definition : A fraction is a part of a whole.

Naming and shading fractions and writing in words.



1 a whole

 $\frac{1}{2}$  a half

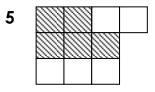
 $\frac{2}{8}$  Two eights

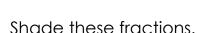
#### ACTIVITY Draw and shade the following fractions

1. <sup>1</sup>/<sub>3</sub>
 2. <sup>1</sup>/<sub>4</sub>
 3. <sup>3</sup>/<sub>4</sub>

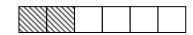
#### Name the shaded fractions in the diagram below







(a) 
$$\frac{3}{6}$$
 (b)  $\frac{1}{3}$  of 6



# TOPIC : FRACTIONS

- SUBTOPIC : Finding equivalent fractions
- CONTENT : How to get equivalent fractions.
- We can use the knowledge of multiples.
- **Examples**:  $\frac{2}{3}$

$$\frac{2}{3} = \frac{2}{3} \times \frac{2}{2} = \frac{4}{6}, \qquad \frac{2}{3} = \frac{2}{3} \times \frac{4}{4} = \frac{8}{12}$$
$$\frac{2}{3} = \frac{2}{3} \times \frac{3}{3} = \frac{6}{9}, \qquad \therefore \frac{2}{3} = \{\frac{2}{3}, \frac{4}{6}, \frac{6}{9}, \frac{8}{12}, \frac{10}{15} \dots \}$$

**ACTIVITY**: List the first 5 equivalent fractions for:

(a) 
$$\frac{1}{3}$$
 (b)  $\frac{2}{5}$  (c)  $\frac{1}{2}$  (d)  $\frac{1}{4}$  (e)  $\frac{4}{7}$ 

- TOPIC : FRACTIONS
- SUBTOPIC : Equivalent fractions
- CONTENT : Finding the missing part of a fraction

Example: (a) 
$$\frac{1}{2} = \frac{1}{6}$$
  
 $\therefore \frac{1}{2} = \frac{3}{6}$   
(b)  $\frac{3}{5} = \frac{12}{20}$   
 $\therefore \frac{3}{5} = \frac{12}{20}$   
 $\frac{3}{5} \times \frac{4}{4} = \frac{12}{20}$   
 $\frac{1}{2} \times \frac{2}{2} = \frac{2}{4}$   
 $\frac{1}{2} \times \frac{2}{3} = \frac{3}{6}$   
 $\frac{3}{5} \times \frac{2}{2} = \frac{6}{10}$   
 $\frac{3}{5} \times \frac{3}{3} = \frac{9}{15}$ 

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### ACTIVITY:

Find the missing part of the fraction

1. 
$$\frac{1}{3} = \frac{1}{6}$$
  
2.  $\frac{2}{3} = \frac{1}{9}$   
3.  $\frac{1}{4} = \frac{1}{12}$   
4.  $\frac{2}{5} = \frac{1}{10}$   
5.  $\frac{3}{4} = \frac{1}{12}$ 

- TOPIC : FRACTIONS
- SUBTOPIC : Reducing fractions
- **CONTENT** : **Reduce**  $\frac{6}{12}$  to its lowest term.

Example:

- (a)  $\frac{6}{12} \div \frac{2}{2} = \frac{3}{6}$  $\frac{3}{6} \div \frac{3}{3} = \frac{1}{2}$  $\therefore \ \frac{6}{12} = \frac{1}{2}$
- (b) Write  $\frac{3}{9}$  to its lowest terms (By using the GCF / HCF
  - $\frac{3}{9} \div \frac{3}{3} = \frac{1}{3}$  $F_3 = \{ 1, \emptyset \}$  $F_9 = \{ 1, (9) \}$ H.C.F = 3

# **ACTIVITY:**

Write the following fractions in their lowest term

- 1.  $\frac{2}{4}$
- **2**.  $\frac{8}{12}$ 3.  $\frac{6}{8}$ **4**.  $\frac{9}{12}$ 5.  $\frac{4}{8}$

: FRACTIONS TOPIC

SUBTOPIC : Comparing fractions without a number line

#### CONTENT :

**Example**: Which is greater  $\frac{1}{3}$  or  $\frac{1}{2}$ ? **(**a)  $\frac{1}{2} = \frac{2}{4}, \frac{3}{6}, \frac{4}{8}$ .....  $\frac{1}{3} = \frac{2}{6}, \frac{3}{9}, \frac{4}{12}$ .....  $\therefore \frac{1}{2}$  is greater than  $\frac{1}{3}$ (b) **Example:** Which one is smaller  $\frac{1}{4}$  or  $\frac{1}{5}$ ?  $\frac{1}{4} = \frac{2}{8}, \frac{3}{12}, \frac{4}{16}, \frac{5}{20}$ ...  $\frac{1}{5} = \frac{2}{10}, \frac{3}{15}, \frac{4}{20}, \frac{5}{25}$ ...  $\therefore \frac{1}{5}$  is smaller than  $\frac{1}{4}$ ACTIVITY Which fraction one is greater than? 1.  $\frac{1}{4}$  or  $\frac{1}{3}$ 2.  $\frac{1}{5}$  or  $\frac{1}{6}$ 3.  $\frac{2}{3}$  or  $\frac{1}{2}$ 

#### Which fraction is smaller than?

1. 
$$\frac{1}{6}$$
 or  $\frac{2}{5}$   
2.  $\frac{1}{10}$  or  $\frac{1}{5}$