SNBP International & Senior Secondary School Chikhali, Pune.
Affiliation No. 1130703
Academic session 2024-25 Grade - IV
NOTES-4 (TERM-1)
Subject: MATHS
Prepared by: Priyanka Gupta LESSON - 6. More on Fractions

Preactivity – Lets Begin from T.B. (Pg. No. 113)

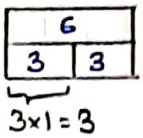
T.B. Pg. No. 114

Concrete Stage

Use 'Fraction Tiles' to complete the fraction equation for the following fractions of the sets.

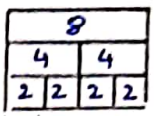
(a) $\frac{3}{4}$ of 12 = 9

(b) $\frac{1}{2}$ of 6 = 3



3×1 = 3

(c) $\frac{1}{4}$ of 8 = 2



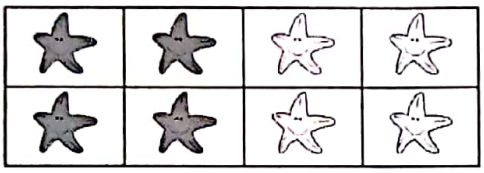
2×1 = 2

Pictorial Stage

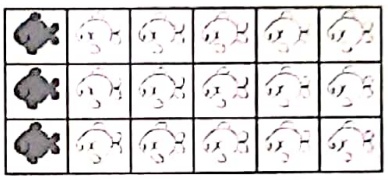
3×3 = 9

1. Observe the pictures, and shade to calculate the fractions of sets.

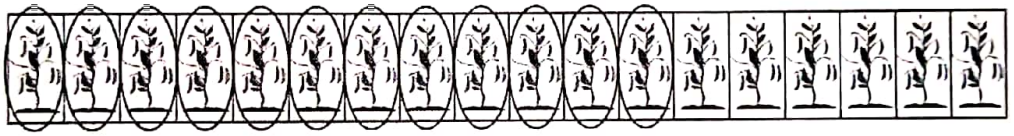
(a) Colour $\frac{1}{2}$ of the star fish.



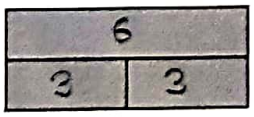
(b) Colour $\frac{1}{6}$ of the clown fish.



2. Circle $\frac{2}{3}$ of 18 plants. = $\frac{2}{3} \times 18^{6} = 12$



3. In the morning, Tom saw 6 gold fish in a shop. $\frac{1}{2}$ of them were sold by the evening. How many were left?



Gold fish = 6

$\frac{1}{2} \times 6 = \frac{6}{2} = \frac{1}{2} = 3$

Abstract Stage

1. **Anil buys 12 pots for his lawn. One third of them are red. How many of pots are red?**

   Answer: 4 $\quad \frac{1}{3} \times 12 = \frac{12}{3} = 4$

2. **Four friends share 3 Pizzas. They first eat up half of 1 pizza. How much more pizza slices does each friend need to eat to finish all the Pizza and share them equally? How many slices was each pizza divided in to? Draw a quick picture to solve.**

   Answer: Each friend needs to eat an additional $\frac{5}{8}$ (five-eighths) of a pizza slice to finish all the pizza and share them equally.

F1 = Share of friend 1
F2 = Share of friend 2
F3 = Share of friend 3
F4 = Share of friend 4

T.B. Pg. No. 117

Concrete Stage

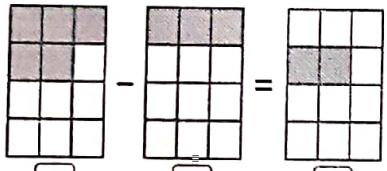
Use 'Fraction Tiles', and solve the following fraction problems.

a. $\frac{3}{4} + \frac{1}{4} = \frac{4}{4}$ b. $\frac{7}{12} - \frac{5}{12} = \frac{2}{12}$ c. $\frac{6}{10} + \frac{3}{10} = \frac{9}{10}$

Pictorial Stage

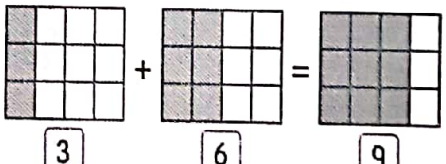
1. **Look at the models, work out the problems by shading the parts of the third model.**

a.



$\frac{5}{12} - \frac{3}{12} = \frac{2}{12}$

b.



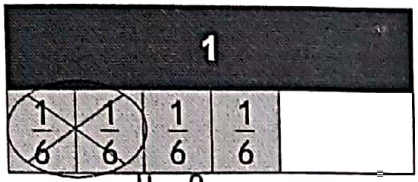
$\frac{3}{12} + \frac{6}{12} = \frac{9}{12}$

2. **Draw models to represent the given sums.**

a. $\frac{4}{8} + \frac{2}{8} = \frac{6}{8}$ b. $\frac{4}{5} - \frac{2}{5} = \frac{2}{5}$

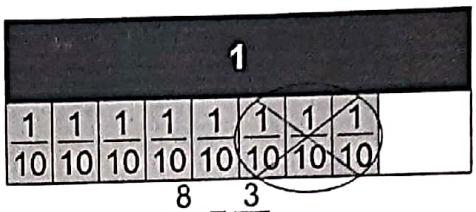
3. Work out the following using the given fraction tiles images, and write the number sentences.

a.



$\frac{4}{6} - \frac{2}{6}$

b.



$\frac{8}{10} - \frac{3}{10}$

Abstract Stage

1. Write the fractions as sums of unit fractions.

a. $\frac{4}{12} = \frac{1}{12} + \frac{1}{12} + \frac{1}{12} + \frac{1}{12}$

b. $\frac{6}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$

c. $\frac{3}{9} = \frac{1}{9} + \frac{1}{9} + \frac{1}{9}$

d. $\frac{5}{11} = \frac{1}{11} + \frac{1}{11} + \frac{1}{11} + \frac{1}{11} + \frac{1}{11}$

2. Work out the following as stated.

a. Anant ate $\frac{3}{5}$ of a cake during lunch and $\frac{1}{5}$ of the cake in snack. What part of the cake did Anant eat altogether? Work out using a model.

Answer: $\frac{4}{5}$

b. Zen ate $\frac{11}{18}$ of a small pizza and Jack ate $\frac{12}{18}$ of another small pizza. How much more of a pizza did Jack eat?

Answer: $\frac{1}{18}$

Think Aloud

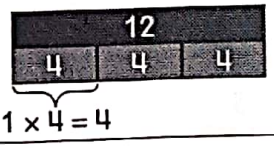
Two trees are $\frac{1}{3}$ of the group. How many trees are in the whole group?

Answer: There are 6 trees in the whole group.

Blooming Questions

1. Solve and write the answers. The first one has been done for you.

a. $\frac{1}{3}$ of 12



$1 \times 4 = 4$

b. $\frac{1}{4}$ of 12 = 3

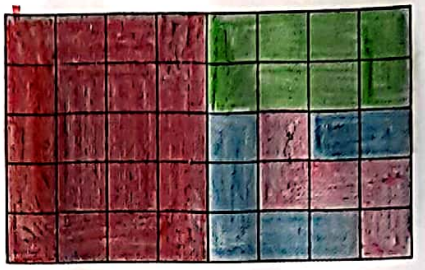
(c) $\frac{1}{5}$ of 25 = 5 (d) $\frac{1}{5}$ of 55 = 11

(2) There are 36 children in a class. The children named their favourite sports.

(a) $\frac{1}{4}$ like soccer = 9 (b) $\frac{1}{3}$ like tennis = 12 (c) $\frac{1}{6}$ like swimming = 6 (d) $\frac{1}{9}$ like basketball = 4

The rest of the children like athletics. How many children like each sport? = 5

(3) Look at the diagram.



(a) Which colour shows $\frac{1}{2}$ of 40? Red

(b) Which colour shows $\frac{1}{5}$ of 40? Green

(c) Which colour shows $\frac{1}{8}$ of 40? Pink

(d) What fraction does the remaining colour show? Blue $\frac{7}{40}$

(4) Draw counters. Then circle equal groups to solve.

(a) $\frac{1}{8}$ of 16. = 2 (b) $\frac{1}{6}$ of 24. = 4

(5) Shejoy took 30 photos at a garden. One-sixth of his photos are only of flowers. How many of photos are of flowers? Answer: 5

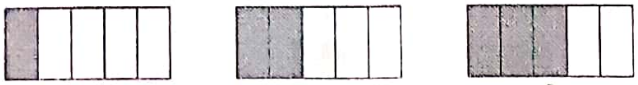
(6) An artist is painting the boundary of a nursery. The nursery is $\frac{8}{10}$ km long. The artist painted $\frac{4}{10}$ km of the nursery. Explain how to find what part of the boundary is left to paint.

Answer: $\frac{8}{10} - \frac{4}{10} = \frac{4}{10}$

(7) Meenu and Vimal climbed up a rock wall at a park. Meenu climbed $\frac{3}{4}$ of the way up the wall. Vimal climbed $\frac{1}{4}$ of the way up the wall. Who climbed higher and by how much?

Answer: $\frac{3}{4} - \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$ Meenu climbed higher by $\frac{1}{2}$

(8) Uma says $\frac{1}{5} + \frac{2}{5} = \frac{3}{10}$. Draw a model to correct her mistake.



$\frac{1}{5}$ + $\frac{2}{5}$ = $\frac{3}{5}$

Mental Maths

Fill in the boxes with appropriate operation symbols to make these number statements true.

(a) $\frac{4}{4} \boxed{-} \frac{2}{4} = \frac{2}{4}$

(b) $\frac{5}{6} \boxed{+} \frac{1}{6} = 1$

(c) $\frac{3}{7} \boxed{+} \frac{2}{7} = \frac{5}{7}$

(d) $\frac{2}{11} \boxed{+} \frac{8}{11} = \frac{10}{11}$

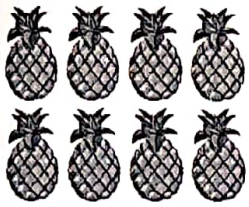
Post activity-

1. Divide the stars into 4 equal groups.

(a) How many stars are in each group? 2

(b) What is $\frac{1}{4}$ of 8? 2

2. Divide the pineapples into 2 equal groups.



(a) How many pineapples are in each group? 4

(b) What is $\frac{1}{2}$ of 8? 4

3. Divide the flowers into 4 equal groups.

(a) How many flowers are in each group? 3

(b) What is $\frac{1}{4}$ of 12? 3

(c) What is $\frac{1}{2}$ of 12? 6

4. Divide the oranges into 2 equal groups.

(a) How many oranges are in each group? 8

(b) What is $\frac{1}{2}$ of 16? 8

(c) What is $\frac{1}{4}$ of 16? 4

(c) What is $\frac{1}{8}$ of 16? 2

Priyanka 19/7/24
Sub. Teacher

19/7/24
H.O.D

19/7/24
Co-ordinator

Principal