



SNBP International & Sr. Secondary School, Chikhali, Pune.

Affiliation No. 1130703

Academic session 2024-25

Notes-(Term-1)

Sub-math

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L-7 More on Fractions

Pre- activity-Solve let's begin in the textbook.

Answer the following questions.

- a Represent the ages of Alfie, Bruno and Jojo on the number line above.
- b Write the age of Bruno as a mixed number $2 \frac{8}{12}$ or $2 \frac{2}{3}$ $\frac{32}{12}$ or $\frac{8}{3}$ and an improper fraction.
- c Calculate the difference between Bruno's and Jojo's age using the number line. $\frac{14}{12}$ or $\frac{7}{6}$
- d Why do you think every whole is divided into 12 portions on the number line? 1 year has 12 months

7.1 Adding and subtracting all kind of fractions.

Concrete Stage

Work out the following questions using 'Fraction Tiles'.

a $\frac{3}{4} + \frac{3}{8} = \frac{9}{8}$

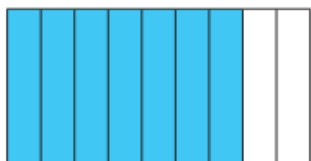
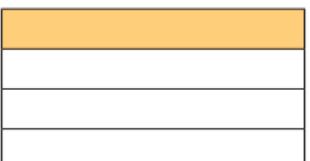
b $\frac{5}{8} - \frac{1}{4} = \frac{3}{8}$

c $\frac{11}{12} + \frac{5}{6} = \frac{21}{12}$

Pictorial Stage

Write the addition and subtraction sentences using the below shaded bars. Also, work out the final answers, and represent it by shading and dividing the fraction bars accordingly.

a  +  = $\frac{11}{14}$

b  -  = $\frac{19}{36}$

Abstract Stage

Work out the following questions.

a $\frac{4}{5} + \frac{2}{3} = \frac{22}{15}$

b $\frac{1}{3} - \frac{1}{8} = \frac{5}{24}$

c $2\frac{3}{5} + 3\frac{3}{10} = 5\frac{9}{10}$

d $5\frac{6}{11} - 1\frac{2}{7} = \frac{328}{77}$

7.2 Multiplying all kinds of fractions

Concrete Stage

Work out the following questions using 'Fraction Tiles'.

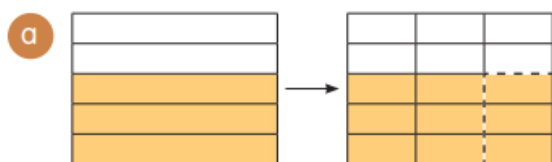
a $\frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$

b $\frac{2}{4} \times \frac{1}{3} = \frac{1}{6}$

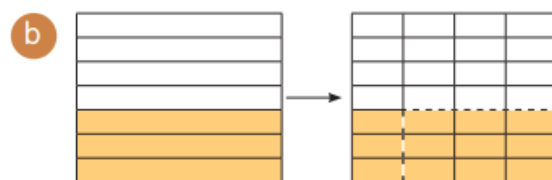
c $\frac{4}{6} \times \frac{1}{2} = \frac{1}{3}$

Pictorial Stage

Look at the following pictures and write the multiplication sentences they are representing.



$$\frac{3}{5} \times \frac{3}{5} = \frac{9}{25}$$



$$\frac{3}{7} \times \frac{4}{7} = \frac{12}{49}$$

Abstract Stage

1 Work out the following.

a $\frac{5}{12} \times \frac{6}{13} = \frac{5}{26}$

b $\frac{19}{20} \times \frac{8}{17} = \frac{38}{85}$

c $\frac{8}{11} \times \frac{1}{4} = \frac{2}{11}$

d $\frac{3}{20} \times \frac{25}{48} = \frac{5}{64}$

2 Max ran $\frac{7}{9}$ km of the track. Riley ran just $\frac{2}{5}$ of the distance Max ran. Work out the distance Riley ran?

Answer: $\frac{14}{45}$

Hence, Riley ran $\frac{14}{45}$ km distance.

7.3 Dividing all kinds of fractions

Concrete Stage

Work out the following questions using 'Fraction Tiles'.

a $\frac{3}{4} \div \frac{1}{8}$ Answer: 6

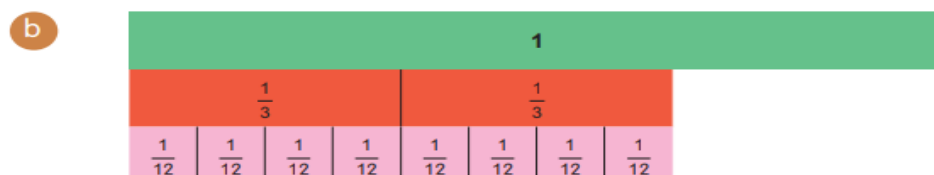
b $\frac{4}{6} \div \frac{2}{12}$ Answer: 4

Pictorial Stage

Write the division sentences for the following fraction tiles.



$$\frac{4}{5} \div \frac{1}{10} = 8$$



$$\frac{2}{3} \div \frac{1}{12} = 8$$

Abstract Stage

Work out the following.

a $\frac{5}{12} \div \frac{3}{4} = \frac{5}{9}$

b $\frac{10}{12} \div \frac{5}{6} = 1$

c $\frac{15}{16} \div \frac{5}{6} = \frac{9}{8}$

d $\frac{8}{9} \div \frac{2}{3} = \frac{4}{3}$

Blooming Questions

1 Work out the following.

a $\frac{3}{5} + \frac{7}{10} - \frac{8}{15} = \frac{23}{30}$

b $1\frac{3}{8} - 2\frac{3}{4} + 4\frac{5}{6} = \frac{83}{24}$

c $\frac{3}{8} \times \frac{4}{5} \times \frac{5}{6} = \frac{1}{4}$

d $1\frac{5}{7}$ of $2\frac{4}{5} \div 1\frac{1}{5} = 4$

2 Fatima says if she adds the fractions below, she will get one whole. Is she correct? Give your reasoning.



This is $\frac{1}{4}$.



This is $\frac{3}{4}$.

Answer: No, she is not correct.

3 If 1 kg of rice costs ₹ $28\frac{1}{2}$, find the cost of 8 kg of rice.

Answer: ₹228.

4 A car covers $25\frac{1}{2}$ km in 17 minutes. Find the distance travelled by it in 1 minute.

Answer: $1\frac{1}{2}$ km

- 5 A square frame is made up of $3\frac{1}{5}$ m of wire. Find the length of each side of the frame.

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

- 6 Karan had $3\frac{3}{4}$ guavas. He $1\frac{2}{3}$ guavas younger brother from his share. How much guava does he have now?

Answer: Karan has $\frac{25}{12}$ guava left.

- 7 Sully ate $\frac{5}{10}$ of a cake and Sameer ate $\frac{4}{9}$ of it. What fraction of cake did they eat altogether?

Answer: They eat $\frac{85}{90}$ altogether.

- 8 What fraction is the yellow piece of the whole?

$\frac{1}{25}$



Post Activity – Solve mental math in the NB.

S. Teacher

H.O.D.

Co-Ordinator

Principal