

d) Simplify: $\frac{3}{5} + \frac{1}{2} - \frac{3}{4} = \frac{3}{5} + \frac{1}{2} - \frac{3}{4}$

Ans. $\frac{2 \times 3 \times 2 + 1 \times 5}{10} - \frac{3}{4}$

LCM of 5 & 2 = 10

$= \frac{6 + 5}{10} - \frac{3}{4}$

LCM of 10 & 4 = ~~10~~ 20

$= \frac{11 \times 2 - 3 \times 5}{20}$

$= \frac{22 - 15}{20} = \frac{7}{20}$

e) A ribbon measuring $3\frac{1}{2}$ m is cut into 7 pieces. What is the length of each piece?

Ans. Whole ribbon = $3\frac{1}{2}$ m

Pieces cut into = 7

length of each piece = $\frac{7}{2} \div 7 = \frac{7}{2} \times \frac{1}{7} = \frac{1}{2}$ m

∴ Hence, The length of each piece is $\frac{1}{2}$ m

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Changing your Tomorrow

- d) Compare and put the correct symbol. (<, > or =)

$$\frac{3}{4} \text{ ? } \frac{2}{5}$$

Ans. $\frac{3 \times 5}{4 \times 5} = \frac{15}{20}$
 $\frac{2 \times 4}{5 \times 4} = \frac{8}{20}$

$$\text{LCM} = 20$$

$$\frac{3}{4} = \frac{3 \times 5}{4 \times 5} = \frac{15}{20}$$

$$\frac{2}{5} = \frac{2 \times 4}{5 \times 4} = \frac{8}{20}$$

- e) Reduce $\frac{18}{42}$ to its lowest form.

Ans.

$$\frac{18}{42} = \frac{3}{7}$$

3. Solve as per the given instructions:

a) Add: $2\frac{5}{13} + \frac{7}{13} + 3\frac{9}{26} = \frac{31}{13} + \frac{7}{13} + \frac{87}{26} = \frac{13 \times 13 + 13 + 87}{26} = \frac{13 \times 26}{26} = 13$

Ans. $\frac{31 \times 2 + 7 \times 2 + 87 \times 1}{26}$

$$= \frac{62 + 14 + 87}{26} = \frac{163}{26}$$

b) Subtract $5\frac{7}{9}$ from $9\frac{5}{7} = \frac{52}{9}$ from $\frac{68}{7} = \frac{68}{7} - \frac{52}{9}$ LCM = 63

Ans. $\frac{68 \times 9 - 52 \times 7}{63}$

$$= \frac{612 - 364}{63} = \frac{248}{63}$$

- c) Multiply: $\frac{2}{5} \times \frac{3}{4} \times \frac{1}{2}$

Ans. $\frac{2}{5} \times \frac{3}{4} \times \frac{1}{2} = \frac{3}{20}$

Chapter- 9

Fractions

WORKSHEET

1. Fill in the blanks :

- a) Fractions with different denominators are unlike fractions.
- b) A mixed number is a combination of a whole number and a proper fraction.
- c) A fraction greater than 1 is always a/an improper fraction.
- d) In $\frac{17}{10}$, the numerator is 17.
- e) The lowest term of $\frac{10}{10}$ is 1.
- f) 5, one-fifth make a whole.
- g) There are 9 halves in $4\frac{1}{2}$.
- h) A proper fraction is always less than 1.
- i) Fractions with the same denominator are like fractions.
- j) The numbers such as half, one-third, one-fourth, two-fifth, five-sixth etc. are called proper numbers.

2. Do as directed:

a) Find $\frac{3}{5}$ of 25. $\frac{3}{5} \times \frac{5}{1} \times 25 = 15$

Ans. $\frac{3}{5} \times 25 = 15$

b) Express $\frac{19}{2}$ as mixed number.

Ans. $9\frac{1}{2}$

c) Express $6\frac{2}{9}$ as improper fraction.

Ans. $9 \times 6 + 2 = \frac{56}{9}$