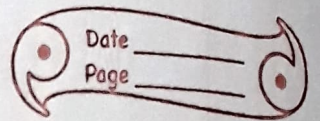


Fractions



1. Fill in the blanks.

a) Fractions with different denominators are unlike fraction.

b) A mixed number is a combination of a whole number and a proper fraction.

c) A fraction greater than 1 is always an improper fraction.

d) In $\frac{17}{19}$, the numerator is 17.

e) The lowest term of $\frac{10}{10}$ is 1.

f) five, 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) Fraction with the same denominator are like fractions.

i) The numbers such as half, one-third, one-fourth, two-fifth, five-sixth etc. are called fractional numbers.

2. Do as directed:

a) Find: $\frac{3}{5}$ of 25

Ans-

$$\frac{3}{5} \times \frac{25}{1} = \frac{15}{1} = 15$$

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

Ans-

$$\begin{array}{r} 2 \overline{) 19} \\ - 18 \\ \hline 1 \end{array} \quad \frac{19}{2} = 9 \frac{1}{2}$$

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

Ans-

$$\begin{aligned} \frac{56}{9} \quad 6 \frac{2}{9} &= \frac{(6 \times 9) + 2}{9} = \frac{54 + 2}{9} \\ &= \frac{56}{9} \end{aligned}$$

d) Compare and put the correct symbol.

(< , > or =)

(15) (8)

$$\frac{3}{4} \quad \frac{2}{5}$$

Hence $\frac{3}{4} > \frac{2}{5}$

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

Ans- $\frac{18}{42} = \frac{3 \times 6}{7 \times 6} = \frac{3}{7}$

3. Solve as per the given instructions:

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

Ans- $\frac{31}{13} + \frac{7}{13} + \frac{147}{26}$

$$\begin{array}{r} 13 \overline{) 13, 13, 26} \\ 2 \overline{) 1, 1, 2} \\ \underline{1, 1, 1} \end{array}$$

L.C.M = $13 \times 2 = 26$

$$\frac{(3 \times 2) + (7 \times 2) + (147 \times 1)}{26}$$

$$= \frac{62 + 74 + 247}{26}$$

$$= \frac{223}{26} = 8 \frac{15}{26}$$

b) Subtract $5\frac{7}{9}$ from $9\frac{5}{7}$

Ans- $\frac{68}{7} - \frac{52}{9}$

$$\begin{array}{r} 9 \overline{) 9.7} \\ \underline{7} \\ 2.7 \\ \underline{2.1} \\ 0.6 \end{array}$$

L.C.M = $9 \times 7 = 63$

$$= \frac{(68 \times 9) - (52 \times 7)}{63} = \frac{612 - 364}{63}$$

$$= \frac{248}{63} = 3 \frac{59}{63}$$

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

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

d) ~~simply~~ simplify: $\frac{3}{5} + \frac{1}{2} - \frac{3}{4}$

Ans-
$$\frac{(3 \times 4) + (1 \times 10) - (3 \times 5)}{20}$$

$$= \frac{12 + 10 - 15}{20} = \frac{7}{20}$$

$5 \mid 5, 2, 4$
 $2 \mid 2, 2, 4$
 $2 \mid 1, 1, 2$
 $1, 1, 1$
 L.C.M =
 $5 \times 2 \times 2 = 20$

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

Ans- length of the ribbon = $3\frac{1}{2}$ m = $\frac{7}{2}$ m

Number of pieces cut = 7

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

= $\frac{1}{2} \times \frac{1}{1} = \frac{1}{2}$ m

∴ The length of each piece of ribbon is $\frac{1}{2}$ m.