

Fractions

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 $\frac{17}{18}$, the numerator is 17.
- e) The lowest term of $\frac{10}{10}$ is 1.
- f) 5 one-fifths 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-fifths, five-sixths etc. are called rational numbers.



2. Do as directed:

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

Ans. $\frac{25 \times 3}{5} = \frac{75}{1} = 75$

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

Ans. $\frac{19}{2} = 9\frac{1}{2}$

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

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

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$$\begin{aligned} \text{Ans. } & \frac{3 \times 5}{3 \times 5} = \frac{15}{15} = 1 \\ & \frac{15}{15} = 1 \end{aligned}$$

e) Reduce $\frac{18}{21}$ to its lowest form.

$$\text{Ans. } \frac{18}{21} = \frac{9 \times 2}{7 \times 3} = \frac{9}{7}$$

3. Solve as per the given instructions:

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

$$\begin{aligned} \text{Ans. } & \frac{41}{13} + \frac{7}{13} + \frac{87}{26} \\ & = \frac{41 \times 2}{13 \times 2} + \frac{7 \times 2}{13 \times 2} + \frac{87 \times 1}{26 \times 1} \\ & = \frac{82}{26} + \frac{14}{26} + \frac{87}{26} = \frac{183}{26} = 7\frac{1}{26} \end{aligned}$$

LCM = 26

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

$$\begin{aligned} \text{Ans. } & \frac{68}{7} - \frac{53}{9} \\ & = \frac{68 \times 9}{7 \times 9} - \frac{53 \times 7}{9 \times 7} \\ & = \frac{612}{63} - \frac{371}{63} = \frac{241}{63} = 3\frac{52}{63} \end{aligned}$$

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

$$\begin{aligned} \text{Ans. } & \frac{2}{5} \times \frac{3}{4} \times \frac{1}{2} \\ & = \frac{3}{20} \end{aligned}$$

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

Ans. $\frac{3 \times 4}{5 \times 4} + \frac{1 \times 10}{2 \times 10} - \frac{3 \times 5}{4 \times 5}$
 $= \frac{12}{20} + \frac{10}{20} - \frac{15}{20}$
 $= \frac{22}{20} - \frac{15}{20} = \frac{7}{20}$

$$\begin{array}{r} 2 \overline{) 5.24} \\ \underline{4} \\ 1 \\ \underline{2} \\ 0 \\ \underline{0} \\ 0 \end{array}$$

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

Ans. A ribbon measuring = $3\frac{1}{2} = \frac{7}{2}$
Pices cutted = 7
length of each Pices = $\frac{7}{2} \div 7 = \frac{7}{2} \times \frac{1}{7} = \frac{1}{2}$ m
Hence, The length of each piece ribbon is $\frac{1}{2}$ m.



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