

## Fractions

### Q1. Fill in the blanks.

1. An improper fraction of  $8\frac{4}{9}$  is \_\_\_\_\_
2.  $\frac{7}{21} + \text{---} = \frac{12}{21}$
3. The equivalent fraction of  $\frac{3}{5}$  having numerator 24 is \_\_\_\_\_
4. Fractions with same denominators are called \_\_\_\_\_
5. Which is greater  $\frac{3}{8}$  *or*  $\frac{3}{5}$
6. What fraction of a day is 6 hours?
7. Is  $\frac{5}{9}$  equals to  $\frac{4}{5}$ ?
8. A fraction is said to be in the simplest (or lowest) form if its numerator and denominator have no common factor except \_\_\_\_\_.
9. In an improper fraction, the numerator is \_\_\_\_\_ than the denominator.
10. The simplest form of  $\frac{18}{36}$  is \_\_\_\_\_

### Q2. Compare the following. [ <, >, = ]

1. a)  $\frac{8}{15} \square \frac{4}{15}$

b)  $\frac{4}{7}$  *and*  $\frac{3}{8}$

c)  $\frac{5}{8}$  *and*  $\frac{5}{7}$

2. Show  $\frac{3}{5}$ ,  $\frac{5}{5}$  *and*  $\frac{7}{5}$  *on a number line.*

### Q3. Express as mixed fractions.

a.  $\frac{17}{7}$

b.  $\frac{38}{5}$

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c.  $\frac{19}{6}$

Q4. Express as improper fractions.

a.  $3\frac{2}{8}$

b.  $5\frac{7}{8}$

c.  $4\frac{1}{3}$

Q5. Find the equivalent fraction form.

a.  $\frac{66}{99}$

b.  $\frac{32}{48}$

c.  $\frac{21}{24}$

Q7. Find the equivalent fraction of  $\frac{7}{15}$  with numerator 35?

Q8. Find the equivalent fraction of  $\frac{45}{54}$  with numerator 5?

Q9. Write the natural numbers between 50 to 65 what fraction of them are prime numbers?

Q10. Solve.

a.  $\frac{5}{12} - \frac{3}{4}$

b.  $2\frac{1}{5} + 4\frac{3}{4}$

c.  $4\frac{4}{5} - 3\frac{7}{9}$

d.  $\frac{1}{4} + \frac{1}{5} + \frac{1}{6}$

e.  $1 - \frac{3}{5}$

f.  $4 - \frac{1}{2}$

Q11. Raju had  $\frac{5}{9}$  of a cake. He gave  $\frac{2}{9}$  out of that to his sister. How much is left?

Q12. Meena bought  $2\frac{1}{4}$  kg of vegetables and Reena bought  $3\frac{1}{2}$  kg of vegetables. Find the total weight of vegetables bought by both of them.

Q11. Find the sum.

a)  $4\frac{1}{2} + \frac{1}{10} + 3\frac{1}{5}$

b)  $2\frac{1}{8} + 1\frac{1}{16} + \frac{3}{4}$

c)  $8\frac{4}{9} + 5\frac{1}{3}$

Q12. Subtract.

a)  $4\frac{5}{8} - 3\frac{3}{16}$

b)  $3\frac{1}{15} - 2\frac{1}{5}$

c) *subtract  $\frac{3}{4}$  from  $3\frac{1}{7}$*

d) *Subtract  $\frac{4}{9}$  from 6.*

## Fractions

### I. Important Points.

1. Fraction whose Numerators are less than denominators are called Proper fractions.
2. Fractions whose Numerators are greater than Denominators are called Improper fractions.
3. If the Numerators of a fraction is less than Denominator the fraction is less than 1.
4. If Numerator of a fraction is greater than denominator then the fraction is more than 1.
5. If Numerator is equal to the Denominator then the fraction is equal to 1.
6. A Fraction with numerator 1 is called UNIT FRACTION.
7. The Fraction is said to be in the lowest term or in simplest form if the H.C.F. of its numerator and the denominator is 1.
8. A group of fraction with the same denominator are called LIKE FRACTIONS.
9. A group of fraction with the different denominators are called UNLIKE FRACTIONS.
10. Different fractions represents the same part are called EQUIVALENT FRACTIONS.
11. Proper fractions are always less than 1.
12. Improper fractions are greater than or equal to 1.
13. Of the two fractions with same numerator, the fraction with greater denominator is smaller.
14. Of the two fractions with same denominator the fraction with greater numerator is greater.

### II. Solve the following

(i)  $\frac{2}{7} = \frac{8}{\square}$  (ii)  $\frac{5}{8} = \frac{10}{\square}$

7

8

$$(iii) \quad \frac{3}{5} = \frac{8}{20} \quad (iv)$$

$$\frac{45}{60} = \frac{15}{\boxed{\phantom{000}}}$$

$$(v) \quad \frac{18}{24} = \frac{\boxed{\phantom{000}}}{4} \quad (vi)$$

$$\frac{2}{9} = \frac{\boxed{\phantom{000}}}{63}$$

$$(vii) \quad \frac{15}{35} = \frac{\boxed{\phantom{000}}}{7} \quad (viii)$$

$$\frac{4}{5} = \frac{\boxed{\phantom{000}}}{140}$$

$$(ix) \quad \frac{8}{64} = \frac{\boxed{\phantom{000}}}{8} \quad (x)$$

$$\frac{12}{72} = \frac{2}{\boxed{\phantom{000}}}$$

III. Reduce the following fractions in to simplest form.

$$(i) \quad \frac{48}{60}$$

$$(ii) \quad \frac{150}{60}$$

$$(iii) \quad \frac{84}{98}$$

$$(iv) \quad \frac{12}{52}$$

$$(v) \quad \frac{7}{28}$$

$$(vi) \quad \frac{36}{24}$$

$$(vii) \quad \frac{112}{128}$$

$$(viii) \quad \frac{63}{189}$$

$$(ix) \quad \frac{90}{104}$$

$$(x) \quad \frac{72}{120}$$

IV. Find an equivalent fraction of

$$\frac{3}{5} \text{ having}$$

- (a) Denominator 20
- (b) Numerator 36
- (c) Denominator 75
- (d) Numerator 45
- (e) Denominators 125

V. Find an equivalent fraction of

$$\frac{16}{144} \text{ having}$$

- (a) numerator 2
- (b) denominator 72
- (c) numerator 4
- (d) numerator 1

VI. Change the following into improper fraction

(i)  $\frac{2}{5}$       (ii)  $\frac{2}{5}$       (iii)  $\frac{3}{7}$

(iv)  $\frac{5}{7}$       (v)  $\frac{18}{23}$       (vi)  $\frac{7}{9}$

VII. Change the following into mixed number

(i)  $\frac{8}{3}$       (ii)  $\frac{16}{3}$       (iii)  $\frac{54}{7}$       (iv)  $\frac{209}{14}$

(v)  $\frac{67}{13}$       (vi)  $\frac{98}{23}$       (vii)  $\frac{145}{12}$       (viii)  $\frac{37}{9}$

VIII. Which of the following pair of fraction are equivalent?

(i)  $\frac{6}{13}$  and  $\frac{30}{65}$       (iv)  $\frac{4}{9}$  ,  $\frac{32}{72}$

(ii)  $\frac{16}{20}$  ,  $\frac{20}{35}$       (v)  $\frac{12}{44}$  ,  $\frac{21}{76}$

(iii)  $\frac{8}{15}$  ,  $\frac{40}{75}$       (vi)  $\frac{11}{17}$  ,  $\frac{55}{85}$

IX. Fill in the blanks by putting  $<$  ,  $>$  ,  $=$

(i)  $\frac{7}{11}$  -  $\frac{5}{11}$       (ii)  $\frac{17}{19}$  -  $\frac{9}{19}$

$$\begin{array}{r} \text{(ii) } \underline{3} \quad - \quad \underline{21} \\ 21 \qquad \qquad 21 \end{array} \qquad \begin{array}{r} \text{(iv) } \underline{5} \quad - \quad \underline{5} \\ 8 \qquad \qquad 16 \end{array}$$

$$\begin{array}{r} \text{(v) } \underline{13} \quad - \quad \underline{17} \\ 20 \qquad \qquad 20 \end{array} \qquad \begin{array}{r} \text{(vi) } \underline{18} \quad - \quad \underline{18} \\ 25 \qquad \qquad 24 \end{array}$$

X. Arrange the following in Ascending and descending order.

$$\begin{array}{r} \text{(i) } \underline{15} \quad , \quad \underline{15} \quad , \quad \underline{15} \quad , \quad \underline{15} \\ 14 \qquad \qquad 8 \qquad \qquad 19 \qquad \qquad 3 \end{array}$$

$$\begin{array}{r} \text{(ii) } \underline{2} \quad , \quad \underline{15} \quad , \quad \underline{9} \quad , \quad \underline{13} \\ 17 \qquad \qquad 17 \qquad \qquad 17 \qquad \qquad 17 \end{array}$$

$$\begin{array}{r} \text{(iii) } \underline{11} \quad , \quad \underline{23} \quad , \quad \underline{15} \quad , \quad \underline{7} \\ 9 \qquad \qquad 9 \qquad \qquad 9 \qquad \qquad 9 \end{array}$$

$$\begin{array}{r} \text{(iv) } \underline{15} \quad , \quad \underline{25} \quad , \quad \underline{9} \quad , \quad \underline{16} \\ 23 \qquad \qquad 23 \qquad \qquad 23 \qquad \qquad 23 \end{array}$$

$$\begin{array}{r} \text{(v) } \underline{17} \quad , \quad \underline{17} \quad , \quad \underline{17} \quad , \quad \underline{17} \\ 8 \qquad \qquad 16 \qquad \qquad 5 \qquad \qquad 11 \end{array}$$



XI. Solve

$$(i) \frac{1}{5} + \frac{3}{10} \quad (ii) \frac{2}{4} + \frac{1}{6} + \frac{5}{12}$$

$$(iii) \frac{3}{10} + \frac{1}{15} \quad (iv) \frac{7}{15} + \frac{2}{5}$$

$$(v) \frac{5}{6} + \frac{7}{12} + \frac{1}{9} \quad (vi) \frac{9}{16} - \frac{5}{12}$$

$$(vii) \frac{5}{14} - \frac{2}{7} \quad (viii) \frac{5}{16} - \frac{5}{24}$$

$$(ix) 3 - \frac{4}{5} \quad (x) \frac{5}{6} - \frac{7}{12} \quad (xi) \frac{31}{15} - \frac{5}{6}$$

XII. Find the difference between.

$$(i) \frac{7}{15} \text{ and } \frac{9}{10} \quad (ii) \frac{2}{24} \text{ and } \frac{15}{18}$$

$$(iii) \frac{5}{18} \text{ and } \frac{11}{12} \quad (iv) \frac{2}{7} \text{ and } \frac{5}{14}$$

$$(v) \frac{13}{18} \text{ and } \frac{7}{11} \quad (vi) \frac{5}{12} \text{ and } \frac{13}{15}$$