

Class: 6
Subject: Mathematics
Topic: Fractions
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

Q.1 What fraction of an hour is 24 minutes?

- a) 24/1 b) 24/60 c) 24/10 d) 1/24

Solution: b) 24/60

[Hint: 1 hour= 60 minutes

The required fraction= 24/60]

Q.2 Convert $12\frac{7}{5}$ into an improper fraction.

- a) 187/12 b) 7/180 c) 187/15 d) None

Solution: c) 187/15

[Hint: $\frac{(\text{Whole Number} \times \text{denominator}) + \text{Numerator}}{\text{Denominator}} = \frac{(12 \times 15) + 7}{15} = \frac{187}{15}$]

Q.3 Convert 103/12 into mixed fraction.

- a) $8\frac{7}{12}$ b) $10\frac{3}{12}$ c) $7\frac{8}{12}$ d) $12\frac{7}{8}$

Solution: a) $8\frac{7}{12}$

[Hint: On dividing 103 by 12, we get quotient=8 and remainder=7

Hence, quotient= whole number, remainder= Numerator, Denominator= denominator]

Q.4 Find the equivalent fraction of 8/11.

- a) 8/11 b) 11/8 c) 16/33 d) 16/22

Solution: d) 16/22

[Hint: To get the equivalent fraction, we multiply the numerator and denominator by the same non-zero number.

$$\frac{8 \times 2}{11 \times 2} = \frac{16}{22}$$

Q.5 Write the fraction equivalent to $\frac{3}{4}$ with numerator 15.

- a) $\frac{15}{10}$ b) $\frac{15}{5}$ c) $\frac{15}{25}$ d) $\frac{15}{20}$

Solution: d) $\frac{15}{20}$

[Hint: Clearly, $15=3 \times 5$

So, we multiply the denominator by 5, $4 \times 5= 20$]

Q.6 Reduce $\frac{48}{60}$ into simplest form.

- a) $\frac{24}{30}$ b) $\frac{4}{5}$ c) $\frac{12}{15}$ d) $\frac{1}{2}$

Solution: b) $\frac{4}{5}$

[Hint: Divide numerator and denominator with a common factor of 48 and 60]

Q.7 Replace with a correct number in $\frac{18}{24} = \frac{\text{input}}{4}$

- a) 3 b) 1 c) 4 d) 18

Solution: a) 3

[Hint: Divide numerator and denominator with a common factor to get the equivalent fraction.

$\frac{24}{6} = 4, \frac{18}{6} = 3$]

Q.8 Compare $\frac{7}{8}$ and $\frac{9}{10}$

- a) $\frac{7}{8} > \frac{9}{10}$ b) $\frac{7}{8} = \frac{9}{10}$ c) $\frac{7}{8} < \frac{9}{10}$ d) None

Solution: c) $\frac{7}{8} < \frac{9}{10}$

[Hint: On making $\frac{7}{8}$ and $\frac{9}{10}$ as equivalent fractions, we can compare the given fractions.]

Q.9 Arrange the fractions $\frac{4}{5}$, $\frac{7}{10}$, $\frac{8}{15}$ and $\frac{17}{30}$ in descending order.

- a) $\frac{4}{5} > \frac{7}{10} > \frac{17}{30} > \frac{8}{15}$
b) $\frac{17}{30} > \frac{8}{15} > \frac{7}{10} > \frac{4}{5}$
c) $\frac{8}{15} > \frac{17}{30} > \frac{7}{10} > \frac{4}{5}$
d) $\frac{7}{10} > \frac{8}{15} > \frac{17}{30} > \frac{4}{5}$

Solution: a) $\frac{4}{5} > \frac{7}{10} > \frac{17}{30} > \frac{8}{15}$

[Hint: LCM of 5, 10, 15, 30=30

Convert each of the fractions into an equivalent fraction with denominator 30 and arrange in Descending order.]

Q.10 Find the sum of $\frac{3}{8}$, $\frac{1}{8}$ and $\frac{5}{8}$.

- a) $\frac{3}{8}$ b) $\frac{9}{8}$ c) $\frac{9}{24}$ d) $\frac{5}{24}$

Solution: b) $\frac{9}{8}$

[Hint: $\frac{3+1+5}{8} = \frac{9}{8}$]

Q.11 Find the sum of $\frac{5}{6}$, $\frac{7}{8}$ and $\frac{11}{12}$

- a) $\frac{23}{26}$ b) $2\frac{5}{8}$ c) $1\frac{11}{12}$ d) $1\frac{3}{23}$

Solution: b) $2\frac{5}{8}$

[Hint: LCM of 6, 8, 12=24

$$\frac{20+21+22}{24} = \frac{64}{24}$$

$$= 2\frac{5}{8}]$$

Q.12 Find the difference of $\frac{11}{12}$ and $\frac{7}{12}$

- a) $\frac{4}{0}$ b) $\frac{1}{3}$ c) 0 d) None

Solution: b) $\frac{1}{3}$

[Hint: Difference of like fractions = $\frac{\text{Difference of numerator}}{\text{Common denominator}}$]

Q.13 Subtract $\frac{3}{5}$ from 1.

- a) $\frac{2}{5}$ b) $\frac{1}{2}$ c) $\frac{2}{5}$ d) None

Solution: c) $\frac{2}{5}$

[Hint: LCM of 1 and 5 is 5

$$\frac{5-3}{5} = \frac{2}{5}]$$

Q.14 Subtract $3\frac{5}{9}$ from $5\frac{1}{6}$

- a) $\frac{11}{18}$ b) $1\frac{11}{18}$ c) $-2\frac{4}{3}$ d) $\frac{1}{3}$

Solution: b) $1\frac{11}{18}$

[Hint: $5\frac{1}{6} - 3\frac{5}{9} = \frac{31}{6} - \frac{32}{9}$

LCM of 6 and 9= 18

$$\frac{93-64}{18} = \frac{29}{18}$$
$$= 1\frac{11}{18}]$$

Q.15 Arrange the fractions $\frac{2}{3}$, $\frac{1}{6}$, $\frac{5}{9}$ and $\frac{7}{12}$ in ascending order.

a) $\frac{2}{3} < \frac{5}{9} < \frac{7}{12} < \frac{1}{6}$

b) $\frac{5}{9} < \frac{7}{12} < \frac{1}{6} < \frac{2}{3}$

c) $\frac{1}{6} > \frac{5}{9} > \frac{7}{12} > \frac{2}{3}$

d) $\frac{1}{6} < \frac{5}{9} < \frac{7}{12} < \frac{2}{3}$

Solution: d) $\frac{1}{6} < \frac{5}{9} < \frac{7}{12} < \frac{2}{3}$

[Hint: Convert each fraction into equivalent fraction and arrange them in ascending order.]

Q.16 $\frac{5}{6} + \frac{2}{3} - \frac{4}{9} = ?$

a) $1\frac{1}{18}$

b) $1\frac{1}{9}$

c) $1\frac{1}{6}$

d) $1\frac{1}{3}$

Solution: a) $1\frac{1}{18}$

[Hint: LCM of 6, 3 and 9= 18

$$= \frac{15+12-8}{18}$$
$$= \frac{19}{18} = 1\frac{1}{18}]$$

Q.17 While coming back home from his school, Kishan covered $4\frac{3}{4}$ Km by bus and $1\frac{1}{2}$ Km on foot.

What is the distance of his house from the school?

a) $5\frac{4}{6}$ Km

b) $6\frac{1}{4}$ Km

c) $5\frac{3}{4}$ Km

d) $2\frac{2}{3}$ Km

Solution: b) $6\frac{1}{4}$ Km

[Hint: Add $4\frac{3}{4}$ Km and $1\frac{1}{2}$ Km]

Q.18 The cost of a pen is Rs. $6\frac{2}{3}$ and that of a pencil is Rs. $4\frac{1}{6}$. Which costs more and by how much?

- a) Pen by Rs. $2\frac{1}{2}$ b) Pencil by Rs. $2\frac{1}{2}$ c) Pen by Rs. $2\frac{1}{6}$ d) Pencil by Rs. $2\frac{1}{6}$

Solution: a) Pen by Rs. $2\frac{1}{2}$

[Hint: Compare the costs of pen and pencil by making equivalent fractions and then find the difference.]

Q.19 What should be added to $6\frac{7}{15}$ to get $8\frac{1}{5}$?

- a) $13\frac{1}{3}$ b) $3\frac{1}{3}$ c) $2\frac{7}{15}$ d) $1\frac{11}{15}$

Solution: d) $1\frac{11}{15}$

[Hint: Subtract $6\frac{7}{15}$ from $8\frac{1}{5}$]

Q.20 ? - $\frac{8}{21} = \frac{8}{21}$.

- a) 0 b) 1 c) $\frac{21}{8}$ d) $\frac{16}{21}$

Solution: d) $\frac{16}{21}$

[Hint: It is a difference of like fractions. $\frac{16}{21} - \frac{8}{21} = \frac{8}{21}$]