RS Aggarwal Solutions for Class 6 Maths Chapter 5–Fractions

Class 6 - Chapter 5 Fractions

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RS Aggarwal Solutions for Class 6 Maths Chapter 5–Fractions

Class 6: Maths Chapter 5 solutions. Complete Class 6 Maths Chapter 5 Notes.

RS Aggarwal Solutions for Class 6 Maths Chapter 5–Fractions

RS Aggarwal 6th Maths Chapter 5, Class 6 Maths Chapter 5 solutions

Ex 5A Solutions

Question 1.

Solution:

(i) 34

(ii) 14

(iii) 23

(iv) 310

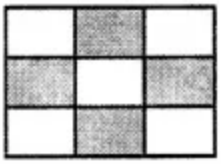
(v) 49

(vi) 38

Question 2.

Solution:

In the figure, 49 is shaded



Question 3.

Solution:

In the figure, whole rectangle is not divided into four equal parts.

Question 4.

Solution:

(i) Three-fourths = 34

(ii) Four-sevenths = 47

(iii) Two-fifths = 25

(iv) Three-tenths = 310

(v) One-eighth = 18

(vi) three-tenths = 56

(vii) five-sixths = 89

(vii) seven-twelfths = 712

Question 5.

Solution:

(i) In 49, numerator is 4 and denominator is 9.

(ii) In 611, numerator is 6 and denominator is 11.

(iii) In 815, numerator is 8 and denominator is 15.

(iv) In 1217, numerator is 12 and denominator is 17.

(v) 51 , numerator is 5 and denominator is 1.

Question 6.

Solution:

(z) Numerator = 3, Denominator = 8, then fraction = 38.

(ii) Numerator = 5, Denominator = 12, then fraction = 512

(iii) Numerator = 7, Denominator = 16, then fraction = 716.

(iv) Numerator = 8, Denominator = 15, then fraction = 815

Question 7.

Solution:

(i) 23 = two-thirds

(ii) 49 = four-ninths

(iii) 25 = two-fifths

(iv) 710 = seven-tenths

(v) 13 = one-thirds

(vi) 34 = three-fourth

(vii) 38 = three-eighths

(viii) 914 = nine-fourteenths

(ix) 511 = five-elevanths

(x) 615 = six-fifteenths

Question 8.

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Solution:

24 minutes is the fraction of 1 hour i.e.,

60 minutes = 2460

Question 9.

Solution:

Natural number between 2 to 10 are 2, 3, 4, 5, 6, 7, 8, 9, 10 = 9

Out of these prime number are 2, 3, 5, 7 = 4

Fraction = 49

Question 10.

Solution:

(i) 23 of 15 pens = 23 x 15 = 2 x 5 = 10 pens.

(ii) 23 of 27 balls = 23 x 27 = 2 x 9 = 18 balls.

(iii) 23 of 36 balloons = 23 x 36 = 2 x 12 = 24 balloons. Ans.

Question 11.

Solution:

(i) 34 of 16 cups = 34 x 16 = 3 x 4

= 12 cups.

(ii) 34 of 28 rackets = 34 x 28 = 3 x 7

= 21 rackets.

(iii) 34 of 32 books = 34 x 32 = 3 x 8

= 24 books. Ans.

Question 12.

Solution:

Total number of pencils Neelam has = 25

No. of pencils given to Meena

= 45 of 25

= 45 x 25 – 20

No. of pencils left with Neelam = 25 – 20 = 5

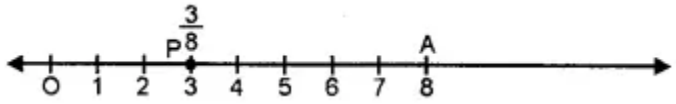
Question 13.

Solution:

(i) 38

Take a line segment OA = one unit of length

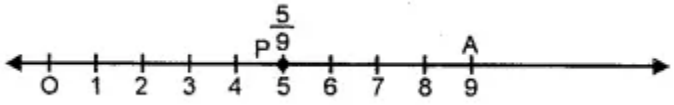
Divide it into 8 equal parts and take 3 parts at P, then P represents 38.



(ii) 59

(a) Take a line segment OA = one unit of length.

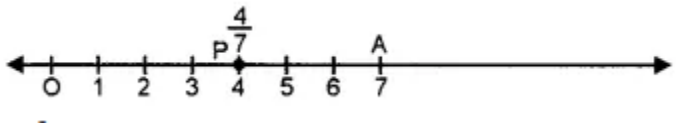
(b) Divide it into nine equal parts and take 5 parts at P, then P represents 59.



(iii) 47

(a) Take a line segment OA = one unit of length.

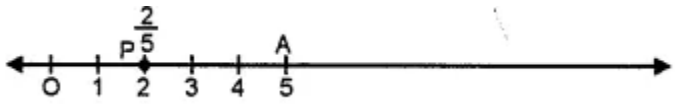
(b) Divide it into 7 equal parts and take 4 parts at P then P represents 47.



(iv) 25

(a) Take a line segment OA = 1 unit of length.

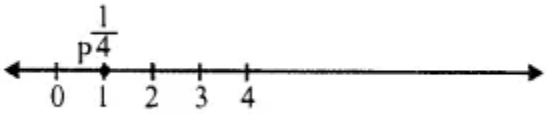
(b) Divide it with 5 equal parts and take 2 parts and P then P represents 25.



(v) 14

(a) Take a line segment OA = 1 unit of length.

(b) Divide it with 4 equal parts and take 1 parts and P then P represents 14.



Ex 5B Solutions

Question 1.

Solution:

We know that, a fraction is proper if its denominator is greater than its numerator. Therefore,

12, 35 and 1011 are proper fractions. Ans.

Question 2.

Solution:

We know that a fraction is improper if its denominator is less than its numerator

Therefore,

$$\frac{3}{2}, \frac{9}{4}, \frac{8}{8}, \frac{3}{1}, \frac{27}{16}, \frac{19}{18}, \frac{26}{26}$$

are improper fractions. Ans.

Question 3.

Solution:

Six improper fractions with denominator 5 can be

$$\frac{6}{5}, \frac{7}{5}, \frac{8}{5}, \frac{9}{5}, \frac{10}{5}, \frac{11}{5} \ldots\ldots$$

Question 4.

Solution:

Six improper fraction with denominator 13 can be

$$\frac{14}{13}, \frac{15}{13}, \frac{16}{13}, \frac{17}{13}, \frac{18}{13}, \frac{19}{13} \ldots\ldots$$

Question 5.

Solution:

(i) $5\frac{5}{7} = \frac{5 \times 7 + 5}{7} = \frac{35 + 5}{7} = \frac{40}{7}$.

(ii) $9\frac{3}{8} = \frac{9 \times 8 + 3}{8} = \frac{72 + 3}{8} = \frac{75}{8}$.

(iii) $6\frac{3}{10} = \frac{6 \times 10 + 3}{10} = \frac{60 + 3}{10} = \frac{63}{10}$.

(iv) $3\frac{5}{11} = \frac{3 \times 11 + 5}{11} = \frac{33 + 5}{11} = \frac{38}{11}$.

(v) $10\frac{9}{14} = \frac{10 \times 14 + 9}{14} = \frac{140 + 9}{14} = \frac{149}{14}$.

(vi) $12\frac{7}{15} = \frac{12 \times 15 + 7}{15} = \frac{180 + 7}{15} = \frac{187}{15}$.

(vii) $8\frac{8}{13} = \frac{8 \times 13 + 8}{13} = \frac{104 + 8}{13} = \frac{112}{13}$.

(viii) $51\frac{2}{3} = \frac{51 \times 3 + 2}{3} = \frac{153 + 2}{3} = \frac{155}{3}$.

Question 6.

Solution:

(i) $\frac{17}{5} = 3 + \frac{2}{5} = 3\frac{2}{5}$.

$$5\overline{)17}\,(\,3,\quad 15,\quad 2$$

(ii) $\frac{62}{7} = 8 + \frac{6}{7} = 8\frac{6}{7}$.

$$7\overline{)62}\,(\,8,\quad 56,\quad 6$$

(iii) $\frac{101}{8} = 12 + \frac{5}{8} = 12\frac{5}{8}$.

$$8\overline{)101}\,(\,12,\quad 8,\quad 21,\quad 16,\quad 5$$

(iv) $\frac{95}{13} = 7 + \frac{4}{13} = 7\frac{4}{13}$.

$$13\overline{)95}\,(\,7,\quad 91,\quad 4$$

(v) $\frac{81}{11} = 7 + \frac{4}{11} = 7\frac{4}{11}$.

$$11\overline{)81}\,(\,7,\quad 77,\quad 4$$

(vi) $\frac{87}{16} = 5 + \frac{7}{16} = 5\frac{7}{16}$.

$$16\overline{)87}\,(\,5,\quad 80,\quad 7$$

(vii) $\frac{103}{12} = 8 + \frac{7}{12} = 8\frac{7}{12}$.

$$12\overline{)103}\,(\,8,\quad 96,\quad 7$$

(viii) $\frac{117}{20} = 5 + \frac{17}{20} = 5\frac{17}{20}$.

$$20\overline{)117}\,(\,5,\quad 100,\quad 17$$

Question 7.

Solution:

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(i) $\frac{1}{2} \boxed{<} 1$ (ii) $\frac{3}{4} \boxed{<} 1$

(iii) $1 \boxed{>} \frac{6}{7}$ (iv) $\frac{6}{6} \boxed{=} 1$

(v) $\frac{3016}{3016} \boxed{=} 1$ (vi) $\frac{11}{5} \boxed{>} 1$

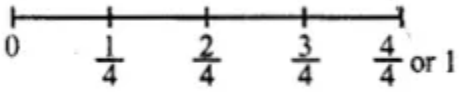
Question 8.

Solution:

(i) $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, \frac{4}{4}$

$\Rightarrow \frac{1}{4}, \frac{2}{4}, \frac{3}{4}, \frac{4}{4}$

Required number line is

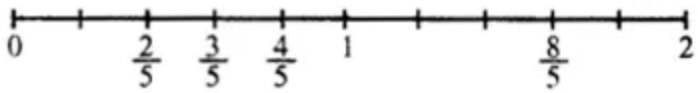


(ii) $\frac{1}{8}, \frac{2}{8}, \frac{3}{8}, \frac{5}{8}, \frac{7}{8}$

Required number line is

(iii) $\frac{2}{5}, \frac{3}{5}, \frac{4}{5}, \frac{8}{5}$

Required number line is



Ex 5C Solutions

Question 1.

Solution:

(i) 23

= 2X23X2

= 46

$$= \frac{2\times3}{3\times3} = \frac{6}{9} = \frac{2\times4}{3\times4} = \frac{8}{12}$$

$$= \frac{2\times5}{3\times5} = \frac{10}{15} = \frac{2\times6}{3\times6} = \frac{12}{18}$$

$$\therefore \quad \frac{2}{3} = \frac{4}{6} = \frac{6}{9} = \frac{8}{12} = \frac{10}{15} = \frac{12}{18}.$$

(ii) $\frac{4}{5} = \frac{4\times2}{5\times2} = \frac{8}{10}$

$$= \frac{4\times3}{5\times3} = \frac{12}{15} = \frac{4\times4}{5\times4} = \frac{16}{20}$$

$$= \frac{4\times5}{5\times5} = \frac{20}{25} = \frac{4\times6}{5\times6} = \frac{24}{30}$$

$$\therefore \quad \frac{4}{5} = \frac{8}{10} = \frac{12}{15} = \frac{16}{20} = \frac{20}{25} = \frac{24}{30}.$$

(iii) $\frac{5}{8} = \frac{5\times2}{8\times2} = \frac{10}{16}$

$$= \frac{5\times3}{8\times3} = \frac{15}{24} = \frac{5\times4}{8\times4} = \frac{20}{32}$$

$$= \frac{5\times5}{8\times5} = \frac{25}{40} = \frac{5\times6}{8\times6} = \frac{30}{48}$$

$$= \frac{5\times3}{12\times3} = \frac{15}{36} = \frac{5\times4}{12\times4} = \frac{20}{48}$$

$$= \frac{5\times5}{12\times5} = \frac{25}{60} = \frac{5\times6}{12\times6} = \frac{30}{72}$$

$$\therefore \quad \frac{5}{12} = \frac{10}{24} = \frac{15}{36} = \frac{20}{48} = \frac{25}{60} = \frac{30}{72}.$$

$$\therefore \quad \frac{5}{8} = \frac{10}{16} = \frac{15}{24} = \frac{20}{32} = \frac{25}{40} = \frac{30}{48}.$$

(iv) $\frac{7}{10} = \frac{7\times2}{10\times2} = \frac{14}{20}$

$$= \frac{7\times3}{10\times3} = \frac{21}{30} = \frac{7\times4}{10\times4} = \frac{28}{40}$$

$$= \frac{7\times5}{10\times5} = \frac{35}{50} = \frac{7\times6}{10\times6} = \frac{42}{60}$$

$$\therefore \quad \frac{7}{10} = \frac{14}{20} = \frac{21}{30} = \frac{28}{40} = \frac{35}{50} = \frac{42}{60}.$$

(v) $\frac{3}{7} = \frac{3\times2}{7\times2} = \frac{6}{14}$

$$= \frac{3\times3}{7\times3} = \frac{9}{21} = \frac{3\times4}{7\times4} = \frac{12}{28}$$

$$= \frac{3\times5}{7\times5} = \frac{15}{35} = \frac{3\times6}{7\times6} = \frac{18}{42}$$

$$\therefore \quad \frac{3}{7} = \frac{6}{14} = \frac{9}{21} = \frac{12}{28} = \frac{15}{35} = \frac{18}{42}.$$

Question 2.

Solution:

(i) In 56 and 2024

56 = 2024

if $5 \times 24 = 20 \times 6$

if $120 = 120$

which is true.

$\therefore \frac{5}{6}$ and $\frac{20}{24}$ is a pair of equivalent fraction.

(*ii*) In $\frac{3}{8}$ and $\frac{15}{40}$

$\frac{3}{8} = \frac{15}{40}$

if $3 \times 40 = 15 \times 8$

if $120 = 120$

which is true.

$\therefore \frac{3}{8}$ and $\frac{15}{40}$ is a pair of equivalent fractions.

(*iii*) $\frac{4}{7}$ and $\frac{16}{21}$

$\frac{4}{7} = \frac{16}{21}$

if $4 \times 21 = 16 \times 7$

if $84 = 112$

which is not true.

$\therefore \frac{4}{7}$ and $\frac{16}{21}$ is not a pair of equivalent fractions.

(*iv*) $\frac{2}{9}$ and $\frac{14}{63}$

$\frac{2}{9} = \frac{14}{63}$

if $2 \times 63 = 14 \times 9$

if $126 = 126$

which is true.

$\therefore \frac{2}{9}$ and $\frac{14}{63}$ is a pair of equivalent fractions.

(v) $\frac{1}{3}$ and $\frac{9}{24}$

$\frac{1}{3} = \frac{9}{24}$

if $1 \times 24 = 9 \times 3$

if $24 = 27$

which is not true.

$\therefore$ $\frac{1}{3}$ and $\frac{9}{24}$ is not a pair of equivalent fractions.

(vi) $\frac{2}{3}$ and $\frac{33}{22}$

$\frac{2}{3} = \frac{33}{22}$

if $2 \times 22 = 33 \times 3$

if $44 = 99$

which is not true.

$\therefore$ $\frac{2}{3}$ and $\frac{33}{22}$ is not a pair of equivalent fractions. **Ans.**

Question 3.

Solution:

Equivalent fraction of 35 having

(i) Denominator = 30 and 30 = 5 x 6

$\therefore \frac{3}{5} = \frac{3\times6}{5\times6} = \frac{18}{30}$

(ii) Numerator = 24 and $24 = 3 \times 8$

$\therefore \frac{3}{5} = \frac{3\times8}{5\times8} = \frac{24}{40}$

Question 4.

Solution:

(i) Denominator = 54, and 54 = 9 x 6

$\therefore \frac{5}{9} = \frac{5\times6}{9\times6} = \frac{30}{54}$

(ii) Let $\frac{5}{9} = \frac{35}{x}$

Now, we have to find x

To get 35, we have to multiply 5 by 7,

then $\frac{5\times7}{9\times7} = \frac{35}{x} \Rightarrow \frac{35}{63} = \frac{35}{x}$

$\therefore \quad x = 63$

$\therefore$ Fraction $= \frac{35}{63}$ **Ans.**

Question 5.

Solution:

Equivalent fraction of 611 having

(i) Denominator = 77 and 77 = 11 = 7

611

= 6X711X7

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= 4277

(ii) Numerator = 60 and 60 = 6 x 10

611

= 6X1011X10

= 60110

Question 6.

Solution:

Let 2430 = 4x

In order to get 4, divide 24 by 6,

$$\text{then} \quad \frac{24 \div 6}{30 \div 6} = \frac{4}{x} \quad \Rightarrow \quad \frac{4}{5} = \frac{4}{x}$$

$$\therefore \qquad x = 5$$

$$\therefore \quad \text{Fraction} = \frac{4}{5}. \quad \textbf{Ans.}$$

Question 7.

Solution:

Equivalent fraction of 3648, with

(i) Numerator 9 and 9 = 36 + 4

3648=36÷448÷4=912

(ii) Denominator = 4 and 4 = 48 ÷ 12

3648=36÷1248÷12=34

Question 8.

Solution:

Equivalent fraction of 5670 with

(i) Numerator 4 and = 56 ÷ 14

5670=56÷1470÷14=45

(ii) Denominator =10 and 10 = 70 ÷ 7

5670=56÷770÷7=810

Question 9.

Solution:

(i) In 915, HCF of 9 and 15 = 3

Now, dividing each term by 3, we get:

915=9÷315÷3=35

Working :

$$9\overline{)15}\,(1 \quad 9 \quad \times$$

$$6\overline{)9}\,(1 \quad 6 \quad \times$$

$$3\overline{)6}\,(2 \quad 6 \quad \times$$

(ii) $\frac{48}{60}$

HCF of 48 and 60 = 12

$$48\overline{)60}\,(1 \quad 48 \quad \times$$

$$12\overline{)48}\,(4 \quad 48 \quad \times$$

$$\therefore \frac{48}{60} = \frac{48 \div 12}{60 \div 12} = \frac{4}{5}$$

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

HCF of 84 and 98 = 14

$$84\overline{)98}\,(1 \quad 84 \quad \times$$

$$14\overline{)84}\,(6 \quad 84 \quad \times$$

$$\therefore \frac{84}{98} = \frac{84 \div 14}{98 \div 14} = \frac{6}{7}$$

(iv) $\frac{150}{60}$

HCF of 150 and 60 = 30

$$60\overline{)150}(2$$
$$120$$
$$\overline{30\overline{)60}(2}$$
$$60$$
$$\overline{\times}$$

$$\therefore \frac{150}{60} = \frac{150 \div 30}{60 \div 30} = \frac{5}{2}$$

(v) $\frac{72}{90}$

HCF of 72 and 90 = 18

$$72\overline{)90}(1$$
$$72$$
$$\overline{18\overline{)72}(4}$$
$$72$$
$$\overline{\times}$$

$$\therefore \frac{72}{90} = \frac{72 \div 18}{90 \div 18} = \frac{4}{5}$$

Question 10.

Solution:

We know that a fraction is in its simplest form if its HCF of numerator and denominator is 1.

(*i*) $\frac{8}{11}$ ∵ HCF of 8 and 11 = 1

$\therefore \frac{8}{11}$ is in the simplest form.

(*ii*) $\frac{9}{14}$ ∵ HCF of 9 and 14 = 1

$\therefore \frac{9}{14}$ is in the simplest form.

(*iii*) $\frac{25}{36}$ ∵ HCF of 25 and 36 = 1

$\therefore \frac{25}{36}$ is in the simplest form.

(iv) $\frac{8}{15}$

∵ HCF of 8 and 15 = 1

$\therefore \frac{8}{15}$ is in it simplest form

(v) $\frac{21}{10}$

∵ HCF of 21 and 10 = 1

$\therefore \frac{21}{10}$ is in its simplest form

Question 11.

Solution:

(i) $\frac{2}{7} = \frac{8}{\square} = \frac{2\times4}{7\times4}$ $(\because 8 = 2 \times 4)$

$= \frac{8}{28}$

(ii) $\frac{3}{5} = \frac{\square}{35} = \frac{3\times7}{5\times7}$ $(\because 35 = 5 \times 7)$

$= \frac{21}{35}$

(iii) $\frac{5}{8} = \frac{20}{\square} = \frac{5\times4}{8\times4}$ $(\because 20 = 5 \times 4)$

$= \frac{20}{32}$

(iv) $\frac{45}{60} = \frac{9}{\square} = \frac{45\div5}{60\div5}$ $(\because 9 = 45 \div 5)$

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$$= \frac{9}{12}$$

(v) $\frac{40}{56} = \frac{\square}{7} = \frac{40 \div 8}{56 \div 8}$ $(\because 56 \div 7 = 8)$

$$= \frac{5}{7}$$

(vi) $\frac{42}{54} = \frac{7}{\square} = \frac{42 \div 6}{54 \div 6}$ $(\because 7 = 42 \div 6)$

$$= \frac{7}{9}$$

Ex 5D Solutions

Question 1.

Solution:

(i) Like fraction : Fractions having the same denominators are called like fractions. For examples:

211,311,411,511,811

(ii) Unlike fraction : Fraction having the different denominators, are called unlike fractions. For examples:

13,47,59,38,711

Question 2.

Solution:

We know that like fractions have same denominator

Now 35,710,815,1130

LCM of 5, 10, 15 and 30 = 30

$$\therefore \frac{3}{5} = \frac{3\times6}{5\times6} = \frac{18}{30}$$

$$\frac{7}{10} = \frac{7\times3}{10\times3} = \frac{21}{30}$$

$$\frac{8}{15} = \frac{8\times2}{15\times2} = \frac{16}{30} \text{ and } \frac{11}{30}$$

$$\therefore \frac{18}{30}, \frac{21}{30}, \frac{16}{30}, \frac{11}{30} \text{ are like fractions}$$

Question 3.

Solution:

We know that like fraction have same denominators

14,58,712,1324

LCM of 4, 8, 12, 24 = 24

$$\therefore \frac{1}{4} = \frac{1\times6}{4\times6} = \frac{6}{24}$$

$$\frac{5}{8} = \frac{5\times3}{8\times3} = \frac{15}{24}$$

$$\frac{7}{12} = \frac{7\times2}{12\times2} = \frac{14}{24} \text{ and } \frac{13}{24}$$

$$\therefore \frac{6}{24}, \frac{15}{24}, \frac{14}{24}, \frac{13}{24} \text{ are like fractions}$$

Question 4.

Solution:

(*i*) $\frac{8}{9} \square \frac{5}{9} = \frac{8}{9} > \frac{5}{9}$

Because denominators are same and $8 > 5$.

(*ii*) $\frac{9}{10} \square \frac{7}{10} = \frac{9}{10} > \frac{7}{10}$

Because denominators are same and $9 > 7$.

(*iii*) $\frac{3}{7} \square \frac{6}{7} = \frac{3}{7} < \frac{6}{7}$

Because denominators are same and $3 < 6$.

(*iv*) $\frac{11}{15} \square \frac{8}{15} = \frac{11}{15} > \frac{8}{15}$

Because denominators are same and $11 > 8$.

(*v*) $\frac{6}{11} \square \frac{5}{11} = \frac{6}{11} > \frac{5}{11}$

Because denominators are same and $6 > 5$.

(*vi*) $\frac{11}{20} \square \frac{17}{20} = \frac{11}{20} < \frac{17}{20}$

Because denominators are same and $11 < 17$. **Ans.**

Question 5.

Solution:

(i) $\frac{3}{4} \square \frac{3}{5} = \frac{3}{4} > \frac{3}{5}$

Because numerator are same and $4 < 5$.

(ii) $\frac{7}{8} \square \frac{7}{10} = \frac{7}{8} > \frac{7}{10}$

Because numerators are same and $8 < 10$.

(iii) $\frac{4}{11} \square \frac{4}{9} = \frac{4}{11} < \frac{4}{9}$

Because numerators are same and $11 > 9$.

(iv) $\frac{8}{11} \square \frac{8}{13} = \frac{8}{11} > \frac{8}{13}$

Because numerators are same and $11 < 13$.

(v) $\frac{5}{12} \square \frac{5}{8} = \frac{5}{12} < \frac{5}{8}$

Because numerators are same and $12 > 8$.

(vi) $\frac{11}{14} \square \frac{11}{15} = \frac{11}{14} > \frac{11}{15}$

Because numerators are same and $14 < 15$. **Ans.**

Compare the fractions given below :

Question 6.

Solution:

45and57

LCM of 5 and 7 = 35

$$\therefore \quad \frac{4}{5} = \frac{4 \times 7}{5 \times 7} = \frac{28}{35}$$

$$\text{and} \quad \frac{5}{7} = \frac{5 \times 5}{7 \times 5} = \frac{25}{35}$$

$$\text{It is clear that } \frac{28}{35} > \frac{25}{35}.$$

$$\therefore \quad \frac{4}{5} > \frac{5}{7}. \quad \textbf{Ans.}$$

Question 7.

Solution:

38and56

LCM of 8 and 6 = 24

$$\therefore \quad \frac{3}{8} = \frac{3 \times 3}{8 \times 3} = \frac{9}{24}$$

$$\text{and} \quad \frac{5}{6} = \frac{5 \times 4}{6 \times 4} = \frac{20}{24}$$

$$\text{It is clear that } \frac{9}{24} < \frac{20}{24}.$$

$$\therefore \quad \frac{3}{8} < \frac{5}{6} \quad \textbf{Ans.}$$

Question 8.

Solution:

711and67

LCM of 11 and 7 = 77

$\therefore \quad \frac{7}{11} = \frac{7 \times 7}{11 \times 7} = \frac{49}{77}$

and $\quad \frac{6}{7} = \frac{6 \times 11}{7 \times 11} = \frac{66}{77}$

It is clear that $\frac{49}{77} < \frac{66}{77}$

$\therefore \quad \frac{7}{11} < \frac{6}{7}$.

Question 9.

Solution:

56 and9 11

LCM of 6 and 11 = 66

$\therefore \quad \frac{5}{6} = \frac{5 \times 11}{6 \times 11} = \frac{55}{66}$

and $\quad \frac{9}{11} = \frac{9 \times 6}{11 \times 6} = \frac{54}{66}$

It is clear that $\frac{55}{66} > \frac{54}{66}$

$\therefore \quad \frac{5}{6} > \frac{9}{11}$. **Ans.**

Question 10.

Solution:

23and49

LCM of 3 and 9 = 9

$\therefore \quad \frac{2}{3} = \frac{2 \times 3}{3 \times 3} = \frac{6}{9}$ and $\frac{4}{9}$

It is clear that $\frac{6}{9} > \frac{4}{9}$

$\therefore \quad \frac{2}{3} > \frac{4}{9}$ **Ans.**

Question 11.

Solution:

613and34

LCM of 13 and 4 = 52

$\therefore \quad \frac{6}{13} = \frac{6 \times 4}{13 \times 4} = \frac{24}{52}$

and $\frac{3}{4} = \frac{3 \times 13}{4 \times 13} = \frac{39}{52}$

It is clear that $\frac{24}{52} < \frac{39}{52}$

$\therefore \quad \frac{6}{13} < \frac{3}{4}$ **Ans.**

Question 12.

Solution:

34and56

LCM of 4 and 6 = 12

$\therefore \quad \frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$

and $\quad \frac{5}{6} = \frac{5 \times 2}{6 \times 2} = \frac{10}{12}$

It is clear that $\frac{9}{12} < \frac{10}{12}$

$\therefore \quad \frac{3}{4} < \frac{5}{6}$ **Ans.**

Question 13.

Solution:

58and712

LCM of 8 and 12 = 24

$\therefore \quad \frac{5}{8} = \frac{5 \times 3}{8 \times 3} = \frac{15}{24}$

and $\quad \frac{7}{12} = \frac{7 \times 2}{12 \times 2} = \frac{14}{24}$

It is clear that $\frac{15}{24} > \frac{14}{24}$

$\therefore \quad \frac{5}{8} > \frac{7}{12}$ **Ans.**

Question 14.

Solution:

49and56

LCM of 9 and 6 = 18

$\therefore \frac{4}{9} = \frac{4 \times 2}{9 \times 2} = \frac{8}{18}$ and $\frac{5}{6} = \frac{5 \times 3}{6 \times 3} = \frac{15}{18}$

It is clear that $\frac{8}{18} < \frac{15}{18}$

$\therefore \quad \frac{4}{9} < \frac{5}{6}$ **Ans.**

Question 15.

Solution:

45and710

LCM of 5 and 10 = 10

$\therefore \quad \frac{4}{5} = \frac{4 \times 2}{5 \times 2} = \frac{8}{10}$ and $\frac{7}{10}$

It is clear that $\frac{8}{10} > \frac{7}{10}$

$\therefore \quad \frac{4}{5} > \frac{7}{10}$ **Ans.**

Question 16.

Solution:

78and910

LCM of 8 and 10 = 40

$\therefore \quad \frac{7}{8} = \frac{7 \times 5}{8 \times 5} = \frac{35}{40}$

and $\quad \frac{9}{10} = \frac{9 \times 4}{10 \times 4} = \frac{36}{40}$

It is clear that $\frac{35}{40} < \frac{36}{40}$

$\therefore \quad \frac{7}{8} < \frac{9}{10}$ **Ans.**

Question 17.

Solution:

1112and1315

LCM of 12 and 15 = 60

$\therefore \quad \frac{11}{12} = \frac{11 \times 5}{12 \times 5} = \frac{55}{60}$

and $\quad \frac{13}{15} = \frac{13 \times 4}{15 \times 4} = \frac{52}{60}$

It is clear that $\frac{55}{60} > \frac{52}{60}$

$\therefore \quad \frac{11}{12} > \frac{13}{15}$ **Ans.**

Question 18.

Solution:

12,34,56and78

LCM of 2, 4, 6 and 8 = 24

$\therefore \quad \frac{1}{2} = \frac{1 \times 12}{2 \times 12} = \frac{12}{24}$,

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

$\frac{5}{6} = \frac{5 \times 4}{6 \times 4} = \frac{20}{24}$

and $\frac{7}{8} = \frac{7 \times 3}{8 \times 3} = \frac{21}{24}$

It is clear from above that

$\frac{12}{24} < \frac{18}{24} < \frac{20}{24} < \frac{21}{24}$

$\therefore \quad \frac{1}{2} < \frac{3}{4} < \frac{5}{6} < \frac{7}{8}$

or $\frac{1}{2}, \frac{3}{4}, \frac{5}{6}, \frac{7}{8}$

are in ascending order. **Ans.**

Question 19.

Solution:

23,56,79and1118

LCM of 3, 6, 9 and 18 = 18

$\therefore \quad \frac{2}{3}=\frac{2\times 6}{3\times 6}=\frac{12}{18}$,

$\frac{5}{6}=\frac{5\times 3}{6\times 3}=\frac{15}{18}$

$\frac{7}{9}=\frac{7\times 2}{9\times 2}=\frac{14}{18}$ and $\frac{11}{18}$

It is clear from above that

$$\frac{11}{18}<\frac{12}{18}<\frac{14}{18}<\frac{15}{18}$$

$\therefore \quad \frac{11}{18}<\frac{2}{3}<\frac{7}{9}<\frac{5}{6}$

or $\frac{11}{18},\frac{2}{3},\frac{7}{9},\frac{5}{6}$

are in ascending order. **Ans.**

Question 20.

Solution:

25,710,1115and1730

LCM of 5, 10, 15 and 30 = 30

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$\therefore \quad \frac{2}{5} = \frac{2 \times 6}{5 \times 6} = \frac{12}{30}$,

$\frac{7}{10} = \frac{7 \times 3}{10 \times 3} = \frac{21}{30}$

$\frac{11}{15} = \frac{11 \times 2}{15 \times 2} = \frac{22}{30}$

and $\frac{17}{30}$

It is clear from above that

$\frac{12}{30} < \frac{17}{30} < \frac{21}{30} < \frac{22}{30}$

or $\frac{2}{5} < \frac{17}{30} < \frac{7}{10} < \frac{11}{15}$

or $\frac{2}{5}, \frac{17}{30}, \frac{7}{10}, \frac{11}{15}$

are in ascending order. **Ans.**

Question 21.

Solution:

34,78,1116and2332

LCM of 4, 8, 16 and 32 = 32

IndCareer

$\therefore \quad \frac{3}{4}=\frac{3\times 8}{4\times 8}=\frac{24}{32}$,

$\frac{7}{8}=\frac{7\times 4}{8\times 4}=\frac{28}{32}$

$\frac{17}{16}=\frac{11\times 2}{16\times 2}=\frac{22}{32}$

and $\frac{23}{32}$

It is clear from above that

$\frac{22}{32}<\frac{23}{32}<\frac{24}{32}<\frac{28}{32}$

or $\frac{11}{16}<\frac{23}{32}<\frac{3}{4}<\frac{7}{8}$

Hence $\frac{11}{16}, \frac{23}{32}, \frac{3}{4}$ and $\frac{7}{8}$ are in ascending order. **Ans.**

Arrange the following fractions in the descending order :

Question 22.

Solution:

34,58,1112and1724

LCM of 4, 8, 12 and 24 = 24

IndCareer

$\therefore \quad \frac{3}{4} = \frac{3 \times 6}{4 \times 6} = \frac{18}{24}$,

$\frac{5}{8} = \frac{5 \times 3}{8 \times 3} = \frac{15}{24}$

$\frac{11}{12} = \frac{11 \times 2}{12 \times 2} = \frac{22}{24}$

and $\frac{17}{24}$

It is clear from above that

$\frac{22}{24} > \frac{18}{24} > \frac{17}{24} > \frac{15}{24}$ or $\frac{11}{12} > \frac{3}{4} > \frac{17}{24} > \frac{5}{8}$

Hence $\frac{11}{12}, \frac{3}{4}, \frac{17}{24}$ and $\frac{5}{8}$ are in descending order. **Ans.**

Question 23.

Solution:

79,512,1118and1736

LCM of 9, 12, 18 and 36 = 36

$\therefore \quad \frac{7}{9} = \frac{7 \times 4}{9 \times 4} = \frac{28}{36}$,

$\frac{5 \times 3}{12 \times 3} = \frac{15}{36}$

$\frac{11}{18} = \frac{11 \times 2}{18 \times 2} = \frac{22}{36}$

and $\frac{17}{36}$

It is clear from the above that

$\frac{28}{36} > \frac{22}{36} > \frac{17}{36} > \frac{15}{36}$ or $\frac{7}{9} > \frac{11}{18} > \frac{17}{36} > \frac{5}{12}$

Hence $\frac{7}{9}, \frac{11}{18}, \frac{17}{36}$ and $\frac{5}{12}$ are in descending order. **Ans.**

Question 24.

Solution:

23,35,710and815

LCM of 3, 5, 10 and 15 = 30

$\therefore \quad \frac{2}{3} = \frac{2 \times 10}{3 \times 10} = \frac{20}{30}$,

$\frac{3}{5} = \frac{3 \times 6}{5 \times 6} = \frac{18}{30}$

$\frac{7}{10} = \frac{7 \times 3}{10 \times 3} = \frac{21}{30}$,

$\frac{8}{15} = \frac{8 \times 2}{15 \times 2} = \frac{16}{30}$.

It is clear from the above that

$\frac{21}{30} > \frac{20}{30} > \frac{18}{30} > \frac{16}{30}$ or $\frac{7}{10} > \frac{2}{3} > \frac{3}{5} > \frac{8}{15}$

Hence $\frac{7}{10}, \frac{2}{3}, \frac{3}{5}$ and $\frac{8}{15}$ are in descending order. **Ans.**

Question 25.

Solution:

57,914,1721and3142

LCM of 7, 14, 21 and 42 = 42

$$\frac{5}{7}=\frac{5\times 6}{7\times 6}=\frac{30}{42},$$

$$\frac{9}{14}=\frac{9\times 3}{14\times 3}=\frac{27}{42}$$

$$\frac{17}{21}=\frac{17\times 2}{21\times 2}=\frac{34}{42}$$

and $\frac{31}{42}$

It is clear from the above that

$$\frac{34}{42}>\frac{31}{42}>\frac{30}{42}>\frac{27}{42} \text{ or}$$

$$\frac{17}{21}>\frac{31}{42}>\frac{5}{7}>\frac{9}{14}$$

Hence $\frac{17}{21},\frac{31}{42},\frac{5}{7}$ and $\frac{9}{14}$ are in descending order. **Ans.**

Question 26.

Solution:

∴ the numerators are equal

∴ The fraction having small denominator is greater than the fraction having large denominator

∴ In descending order, we can write

112,123,17,19,117,150

Question 27.

Solution:

Here, the numerators of all fractions are equal

∴ The fraction having small denominator is greater than the fraction having large denominator

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Now in descending order is

34,35,37,311,313,317

Question 28.

Solution:

Lalita read 30 pages of a book containing 100 pages

She read 30100 = 310 part of the book and Sarita read 25 of the book

Now in 310 and 25, LCM of 10, 5 = 10

310 = 310

25 = 2×25×2 = 410

From above, Sarita read more

as 410 or 25>310

Question 29.

Solution:

Rafiq exercised for 23 hour and Rohit exercised for 34 hour

In 23 and 34, LCM of 3 and 4 = 12

23 = 2×43×4 = 812

34 = 3×34×3 = 912

912>812

=> 34>23

∴ Rohit exercised more time

Question 30.

Solution:

In VI A, 20 student passed out of 25 or 2025 or 45 students passed

But in VI B, 24 out of 30 passed 24 or 2430 or 45 students passed

Now 45 = 45

∴ Both sections gave same result

Ex 5E Solutions

Find the sum :

Question 1.

Solution:

58+18

$$= \frac{5+1}{8} = \frac{6}{8}$$

$$= \frac{6 \div 2}{8 \div 2} = \frac{3}{4}$$

Question 2.

Solution:

49+89

$$= \frac{4+8}{9} = \frac{12}{9}$$

$$= \frac{12 \div 3}{9 \div 3} = \frac{4}{3} = 1\frac{1}{3}$$

Question 3.

Solution:

135+245

85+145

(Changing into improper fractions)

$$= \frac{8+14}{5} = \frac{22}{5} = 4\frac{2}{5} \quad \textbf{Ans.}$$

Question 4.

Solution:

25+56

= 4+1518 (LCM of 9 and 6 = 18)

= 1918

= 1118

Question 5.

Solution:

712+916

$$= \frac{28+27}{48}$$

(LCM of 12 and 16 = 48)

$$= \frac{55}{48} = 1\frac{7}{48} \quad \textbf{Ans.}$$

Question 6.

Solution:

415+1720

$$= \frac{16+51}{60}$$

(LCM of 15 and 20 = 60)

$$= \frac{67}{60} = 1\frac{7}{60}$$ **Ans.**

Question 7.

Solution:

234+556

= 114+356

(Changing into improper fractions)

$$= \frac{33+70}{12}$$ (LCM of 4 and 6 = 12)

$$= \frac{103}{12} = 8\frac{7}{12}$$ **Ans.**

Question 8.

Solution:

318+1512

= 258+1712

(Changing into improper fractions)

$$= \frac{75+34}{24}$$ (LCM of 8 and 12 = 24)

$$= \frac{109}{24} = 4\frac{13}{24}$$ **Ans.**

Question 9.

IndCareer

Solution:

2710+3815

= 2710+5315

(Changing into improper fractions)

$$= \frac{81 + 106}{30}$$

(LCM of 10 and 15 = 30)

$$= \frac{187}{30} = 6\frac{7}{30}$$ **Ans.**

Question 10.

Solution:

323+156+2

113+116+21

(Changing into improper fractions)

$$= \frac{22 + 11 + 12}{6}$$ (LCM of 3, 6, 1 = 6)

$$= \frac{45}{6} = \frac{45 \div 3}{6 \div 3} = \frac{15}{2} = 7\frac{1}{2}$$ **Ans.**

Question 11.

Solution:

3+1415+1320

=31+1915+2320

(Changing into improper fractions)

$$= \frac{180 + 76 + 69}{60}$$

(LCM of 1, 15 and 20 = 60)

$$= \frac{325}{60} = \frac{325 \div 5}{60 \div 5} = \frac{65}{12} = 5\frac{5}{12}$$ **Ans.**

Question 12.

Solution:

313+414+616

103+174+376

(changing into improper fractions)

$$= \frac{40 + 51 + 74}{12}$$ (LCM of 3, 4, 6 = 12)

$$= \frac{165}{12} = \frac{165 \div 3}{12 \div 3} = \frac{55}{4} = 13\frac{3}{4}$$ **Ans.**

Question 13.

Solution:

23+316+429+2518

23+196+389+4118

IndCareer

(Changing into improper fractions)

$$= \frac{12 + 57 + 76 + 41}{18}$$

(LCM of 3, 6, 9, 18 = 18)

$$= \frac{186}{18} = \frac{186 \div 6}{18 \div 6} = \frac{31}{3} = 10\frac{1}{3}$$ **Ans.**

Question 14.

Solution:

213+114+256+3712

$$= \frac{7}{3} + \frac{5}{4} + \frac{17}{6} + \frac{43}{12}$$

(Changing into improper fractions)

$$= \frac{28 + 15 + 34 + 43}{12}$$

(LCM of 3, 4, 6, 12 = 12)

$$= \frac{120}{12} = 10$$ **Ans.**

Question 15.

Solution:

2+34+156+3716

21+34+138+5516

IndCareer

(Changing into improper fractions)

$$= \frac{32 + 12 + 26 + 55}{16}$$

(LCM of 1, 4, 8, 26 = 16)

$$= \frac{125}{16} = 7\frac{13}{16}$$ **Ans.**

Question 16.

Solution:

Cost of a pencil = Rs. 325

Cost of an eraser = Rs.2710

$$\text{Total cost} = \text{Rs.}\,3\frac{2}{5} + \text{Rs.}\,2\frac{7}{10}$$

$$= \left(\frac{17}{5} + \frac{27}{10}\right) \text{ rupees}$$

$$= \frac{34 + 27}{10} = \frac{61}{10} = 6\frac{1}{10} \text{ rupees}$$

$$= \text{Rs.}\,6\frac{1}{10}$$ **Ans.**

Question 17.

Solution:

Length of cloth for kurta = 412 metres

Length of cloth for pyjamas = 223 metres

$$\text{Total length of cloth} = \left(4\frac{1}{2}+2\frac{2}{3}\right)$$

rupees

$$= \left(\frac{9}{2}+\frac{8}{3}\right) \text{ rupees} = \frac{27+16}{6} = \frac{43}{6} \text{ metres}$$

$$= 7\frac{1}{6} \text{ metres} \quad \textbf{Ans.}$$

Question 18.

Solution:

Distance travelled by Rickshaw = 434 km

Distance travelled on foot = 112 km

$$\text{Total distance} = \left(4\frac{3}{4}+1\frac{1}{2}\right) \text{km}$$

$$= \left(\frac{19}{4}+\frac{3}{2}\right) \text{ km}$$

$$= \frac{19+6}{4} = \frac{25}{4} = 6\frac{1}{4} \text{ km} \quad \textbf{Ans.}$$

Question 19.

Solution:

Weight of empty cylinder = 1645 kg

Weight of gas filled in it = 1423 kg

Total. weight of cylinder with gas

$$= 16\frac{4}{5}\text{ kg} + 14\frac{2}{3}\text{ kg}$$

$$= \left(\frac{84}{5} + \frac{44}{3}\right)\text{ kg}$$

$$= \frac{252 + 220}{15} = \frac{472}{15}\text{ kg}$$

$$= 31\frac{7}{15}\text{ kg} \quad \textbf{Ans.}$$

Ex 5F Solutions

Find the difference:

Question 1.

Solution:

58−18

= 5−18

= 48

= 4÷48÷4

= 12

Question 2.

Solution:

712−512

$$= \frac{7-5}{12} = \frac{2}{12}$$

$$= \frac{2 \div 2}{12 \div 2} = \frac{1}{6} \quad \textbf{Ans.}$$

Question 3.

Solution:

437−247

= 317−187

(Changing into improper fractions)

$$= \frac{31-18}{7} = \frac{13}{7} = 1\frac{6}{7}$$ **Ans.**

Question 4.

Solution:

56−49

$$= \frac{15-8}{18}$$ (LCM of 6 and 9 = 18)

$$= \frac{7}{18}$$ **Ans.**

Question 5.

Solution:

12−38

$$= \frac{4-3}{8}$$ (LCM of 2 and 8 = 8)

$$= \frac{1}{8}$$ **Ans.**

Question 6.

Solution:

58−712

$$= \frac{15-14}{24} \quad (\text{LCM of } 8, 12 = 24)$$

$$= \frac{1}{24} \quad \textbf{Ans.}$$

Question 7.

Solution:

279−1815

= 259−2315

(changing into improper fractions)

$$= \frac{125-69}{45} \quad (\text{LCM of } 9 \text{ and } 15 = 45)$$

$$= \frac{56}{45} = 1\frac{11}{45} \quad \textbf{Ans.}$$

Question 8.

Solution:

358−2512

= 298−2912

(Changing into improper fractions)

$$= \frac{87-58}{24} \quad (\text{LCM of } 8 \text{ and } 12 = 24)$$

$$= \frac{29}{24} = 1\frac{5}{24} \quad \textbf{Ans.}$$

Question 9.

Solution:

2310−1715

= 2310−2215

(Changing into improper fractions)

$= \frac{69-44}{30}$ (LCM of 10 and 15 = 30)

$= \frac{25}{30} = \frac{25 \div 5}{30 \div 5} = \frac{5}{6}$ **Ans.**

Question 10.

Solution:

623−334

= 203−154

(Changing into improper fractions)

$= \frac{80-45}{12}$ (LCM of 3 and 4 = 12)

$= \frac{35}{12} = 2\frac{11}{12}$ **Ans.**

Question 11.

Solution:

7−523

= 71−173

(changing into improper fractions)

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$= \frac{21-17}{3} = \frac{4}{3} = 1\frac{1}{3}$ **Ans.**

Question 12.

Solution:

10−638

= 101−518

(changing into improper fractions)

$= \frac{80-51}{8} = \frac{29}{8} = 3\frac{5}{8}$ **Ans.**

Simpilify

Question 13.

Solution:

56−49+23

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

(LCM of 6, 9, 3 = 18)

$= \frac{27-8}{18} = \frac{19}{18} = 1\frac{1}{18}$ **Ans.**

Question 14.

Solution:

58+34−712

$$= \frac{15 + 18 - 14}{24}$$

(LCM of 8, 4, 12 = 24)

$$= \frac{33 - 14}{24} = \frac{19}{24} \quad \textbf{Ans.}$$

Question 15.

Solution:

2+1115−59

= 90+33−2545

(LCM of 15 and 9 = 45)

$$= \frac{123 - 25}{45} = \frac{98}{45} = 2\frac{8}{45} \quad \textbf{Ans.}$$

Question 16.

Solution:

534−4512+316

= 234−5312+196

(changing into improper fractions)

$$= \frac{69 - 53 + 38}{12} \quad \text{(LCM of 4, 12, 6 = 12)}$$

$$= \frac{107 - 53}{12} = \frac{54}{12}$$

$$= \frac{54 \div 6}{12 \div 6} = \frac{9}{2} = 4\frac{1}{2} \quad \textbf{Ans.}$$

Question 17.

IndCareer

Solution:

2+5710−31415

= 21+5710−5915

(changing into improper fractions)

$$= \frac{60 + 171 - 118}{30} \text{ (LCM of 10, 15 = 30)}$$

$$= \frac{231 - 118}{30} = \frac{113}{30} = 3\frac{23}{30} \quad \text{Ans.}$$

Question 18.

Solution:

8−312−214

= 81−72−94

(changing into improper fractions)

$$= \frac{32 - 14 - 9}{4} \qquad \text{(LCM of 2, 4 = 4)}$$

$$= \frac{32 - 23}{4} = \frac{9}{4} = 2\frac{1}{4} \quad \text{Ans.}$$

Question 19.

Solution:

856−338+2712

= 536−278+3112

(changing into improper fractions)

$$= \frac{212 - 81 + 62}{24} \text{ (LCM of 6, 8, 12 = 24)}$$

$$= \frac{274 - 81}{24} = \frac{193}{24} = 8\frac{1}{24} \quad \textbf{Ans.}$$

Question 20.

Solution:

616−515+313

= 376−265+103

(changing into improper fractions)

$$= \frac{185 - 156 + 100}{30} \text{ (LCM of 6, 5, 3 = 30)}$$

$$= \frac{285 - 156}{30} = \frac{129}{30}$$

$$= \frac{129 \div 3}{30 \div 3} = \frac{43}{10} = 4\frac{3}{10} \quad \textbf{Ans.}$$

Question 21.

Solution:

3+115+23−715

= 31+65+23−715

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$$= \frac{45 + 18 + 10 - 7}{15}$$

(LCM of 5, 3, 15, = 15)

$$= \frac{73 - 7}{5} = \frac{66}{15} = \frac{66 \div 3}{15 \div 3}$$

$$= \frac{22}{5} = 4\frac{2}{5}$$ **Ans.**

Question 22.

Solution:

By subtracting 923 from 19, we get the required number

$$= 19 - 9\frac{2}{3} = \frac{19}{1} - \frac{29}{3}$$

$$= \frac{57 - 29}{3} = \frac{28}{3} = 9\frac{1}{3}$$

$\therefore 9\frac{1}{3}$ should be added. **Ans.**

Question 23.

Solution:

By subtracting 6715 from 815 we get the required number

$$= 8\frac{1}{5} - 6\frac{7}{15}$$

$$= \frac{41}{5} - \frac{97}{15} = \frac{123 - 97}{15} = \frac{26}{15} = 1\frac{11}{15}$$

$\therefore 1\frac{11}{15}$ should be added. **Ans.**

Question 24.

Solution:

Sum of 359 and 313

= 329+103

$$= \frac{32+30}{9} = \frac{62}{9}$$

$$\text{Sum of } 5\frac{5}{6} \text{ and } 4\frac{1}{9} = \frac{35}{6} + \frac{37}{9}$$

$$= \frac{105+74}{18} = \frac{179}{18}$$

$$\text{Now, } \frac{179}{18} - \frac{62}{9} = \frac{179-124}{18}$$

$$= \frac{55}{18} = 3\frac{1}{18}. \quad \textbf{Ans.}$$

Question 25.

Solution:

34, 57

$$\therefore \frac{3}{4} = \frac{3 \times 7}{4 \times 7} = \frac{21}{28}$$

(LCM of 4 and 7 = 28)

$$\frac{5}{7} = \frac{5 \times 4}{7 \times 4} = \frac{20}{28}$$

From above we see that $\frac{21}{28} > \frac{20}{28}$

or $\frac{3}{4} > \frac{5}{7}$

Difference $= \frac{21}{28} - \frac{20}{28} = \frac{21 - 20}{28} = \frac{1}{28}$.

Ans.

Question 26.

Solution:

Milk bought by Mrs. Soni = 712 litres

and milk consumed by here = 534 litres

$$\therefore \text{Milk left with her} = \left(7\frac{1}{2} - 5\frac{3}{4}\right) \text{ litres}$$

$$\frac{15}{2} - \frac{23}{4} = \frac{30 - 23}{4} = \frac{7}{4} = 1\frac{3}{4} \text{ litres}$$ **Ans.**

Question 27.

Solution:

Total time of film show = 313 hours

Total spent on advertisement = 134 hours

Duration of the film

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$$= \left(3\frac{1}{3} - 1\frac{3}{4}\right) \text{ hours } = \left(\frac{10}{3} - \frac{7}{4}\right) \text{ hours}$$

$$= \frac{40-21}{12} = \frac{19}{12} = 1\frac{7}{12} \text{ hours} \quad \textbf{Ans.}$$

Question 28.

Solution:

On a day, rickshaw pullar earned

$$= \text{Rs. } 137\frac{1}{2} = \text{Rs. } \frac{275}{2}$$

$$\text{and he spent} = \text{Rs. } 56\frac{3}{4}$$

$$= \text{Rs. } \frac{227}{4}$$

$$\text{Amount left} = \frac{275}{2} - \frac{227}{4}$$

$$= \frac{550-227}{4} = \text{Rs. } \frac{323}{4}$$

$$= \text{Rs } 80\frac{3}{4} \quad \textbf{Ans.}$$

Question 29.

Solution:

Total length of wire =234-metres

Length of one piece = 58 metre

Length of the other piece

$$= 2\frac{3}{4}\text{ metres} - \frac{5}{8}\text{ metre}$$

$$= \frac{11}{4} - \frac{5}{8}\text{ metres}$$

$$= \frac{22-5}{8} = \frac{17}{8}\text{ metres}$$

$$= 2\frac{1}{8}\text{ metres}$$ **Ans.**

Ex 5G Solutions

Objective Questions :

Tick the correct answer in each of the following :

Question 1.

Solution:

(c) ∴ canceling the common factor 2, we get 35

Question 2.

Solution:

(c) ∴ multiplying numerator and denominator by 4, we get 812

Question 3.

Solution:

$$(b)\ \because \frac{2}{3} = \frac{2\times 12}{3\times 12} = \frac{24}{36}.$$

Question 4.

Solution:

$$(a) \because \frac{3}{4} = \frac{x}{20}$$

$$\Rightarrow \quad 4x = 20 \times 3$$

$$\Rightarrow \quad x = \frac{20 \times 3}{4} = 15.$$

Question 5.

Solution:

$$(a) \because \frac{45}{60} = \frac{3}{x}$$

$$\Rightarrow \quad 45x = 3 \times 60$$

$$\Rightarrow \quad x = \frac{3 \times 60}{45} = 4.$$

Question 6.

Solution:

(c) each of the fractions has the same denominator.

Question 7.

Solution:

(d) none of these has greater denominator than its numerator.

Question 8.

Solution:

(a) its denominator is greater than its numerator.

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Question 9.

Solution:

(b) their numerators are same and 4 < 5 , 34>35

Question 10.

Solution:

$(c) \because \frac{3}{5}, \frac{2}{3}, \frac{5}{6}, \frac{7}{10}$

$\frac{18}{30}, \frac{20}{30}, \frac{25}{30}, \frac{21}{30}$

(LCM of 5, 3, 6, 10 = 30)

Question 11.

Solution:

(b) In 45,27,49,411 numerator is same then the smallest denominator's fraction is greater.

Question 12.

Solution:

(a) Denominators are same, then fraction of smallest numerator will be smallest.

Question 13.

Solution:

$(d) \because$ In $\frac{3}{4}, \frac{5}{6}, \frac{7}{12}, \frac{2}{3}$

$= \frac{9}{12}, \frac{10}{12}, \frac{7}{12}, \frac{8}{12}$

The smallest is $\frac{7}{12}$.

Question 14.

Solution:

$(b) \because 4\frac{3}{5} = \frac{4 \times 5 + 3}{5} = \frac{23}{5}$

Question 15.

Solution:

$(c) \because \frac{34}{7} = 4 + \frac{6}{7} = 4\frac{6}{7}$.

Question 16.

Solution:

$(b) \because \frac{5}{8} + \frac{1}{8} = \frac{5+1}{8} = \frac{6}{8} = \frac{3}{4}$.

Question 17.

Solution:

$(b) \because \frac{5}{8} - \frac{1}{8} = \frac{5-1}{8} = \frac{4}{8} = \frac{1}{2}$.

Question 18.

Solution:

$$(a) \because 3\frac{3}{4} - 2\frac{1}{4} = (3-2) + \left(\frac{3}{4} - \frac{1}{4}\right)$$

$$= 1 + \frac{2}{4} = 1 + \frac{1}{2} = 1\frac{1}{2}.$$

Question 19.

Solution:

$$(d) \because \frac{5}{6} + \frac{2}{3} - \frac{4}{9}$$

$$\frac{15+12-8}{18} = \frac{27-8}{18} = \frac{19}{18} = 1\frac{1}{18}.$$

Question 20.

Solution:

(a) $\because 3\frac{1}{3}, \frac{33}{10}$

$\Rightarrow \frac{10}{3}, \frac{33}{10}$

$\Rightarrow \frac{10 \times 10}{3 \times 10}, \frac{33 \times 3}{10 \times 3}$

$\Rightarrow \frac{100}{30}, \frac{99}{30}$

$\Rightarrow \frac{100}{30} > \frac{99}{30}$.

$\Rightarrow 3\frac{1}{3} > \frac{33}{10}$ **Ans.**

RS Aggarwal Class 6 Solutions

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He was born on January 2, 1946 in a village of Delhi. He graduated from Kirori Mal College, University of Delhi. After completing his M.Sc. in Mathematics in 1969, he joined N.A.S. College, Meerut, as a lecturer. In 1976, he was awarded a fellowship for 3 years and joined the University of Delhi for his Ph.D. Thereafter, he was promoted as a reader in N.A.S. College, Meerut. In 1999, he joined M.M.H. College, Ghaziabad, as a reader and took voluntary retirement in 2003. He has authored more than 75 titles ranging from Nursery to M. Sc. He has also written books for competitive examinations right from the clerical grade to the I.A.S. level.

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