

Chapter 2: Fractions and Decimals

NCERT Exemplar · Class 7 · Maths

Questions

Question 1

$(2/5) \times 5\frac{1}{5}$ is equal to:

(a) $26/25$ (b) $52/25$ (c) $2/5$ (d) 6

Solution

Solution:-

(b) $52/25$

First, we have to convert the mixed fraction into an improper fraction

$$5\frac{1}{5}$$

$$= 26/5$$

Then, $(2/5) \times (26/5)$

$$= 52/25$$

Question 2

$3\frac{3}{4} \div \frac{3}{4}$ is equal to:

(a) 3 (b) 4 (c) 5 (d) $45/16$

Solution

Solution:-

(c) 5

First, we have to convert the mixed fraction into improper fraction $3\frac{3}{4} = 15/4$

Then, $15/4 \div \frac{3}{4}$

$$= (15/4) / (3/4)$$

$$= (15/4) \times (4/3)$$

$$= (15 \times 4) / (4 \times 3)$$

$$= (5 \times 1) / (1 \times 1)$$

$$= 5$$

Question 3

A ribbon of length $5\frac{1}{4}$ m is cut into small pieces, each of length $\frac{3}{4}$ m. The number of pieces will be:

(a) 5 (b) 6 (c) 7 (d) 8

Solution

Solution:-

(c) 7

First, we have to convert the mixed fraction into improper fraction $5\frac{1}{4} = 21/4$

Then, $21/4 \div 3/4$

$$= (21/4) / (3/4)$$

$$= (21/4) \times (4/3)$$

$$= (21 \times 4) / (4 \times 3)$$

$$= (7 \times 1) / (1 \times 1)$$

$$= 7$$

Question 4

The ascending arrangement of $(2/3)$, $(6/7)$, $(13/21)$ is:

(a) $6/7$, $2/3$, $13/21$ (b) $13/21$, $2/3$, $6/7$

(c) $6/7$, $13/21$, $2/3$ (d) $2/3$, $6/7$, $13/21$

Solution

Solution:-

(b) $\frac{13}{21}$, $\frac{2}{3}$, $\frac{6}{7}$

LCM of 21, 3, 7 = 21

Now, let us change each of the given fractions into an equivalent fraction having 21 as the denominator.

Clearly,

$$(\frac{13}{21}) < (\frac{14}{21}) < (\frac{18}{21})$$

Hence,

$$(\frac{13}{21}) < (\frac{2}{3}) < (\frac{6}{7})$$

Hence, the given fractions in ascending order are $(\frac{13}{21})$, $(\frac{2}{3})$, $(\frac{6}{7})$

Question 5

Reciprocal of the fraction $\frac{2}{3}$ is:

(a) 2 (b) 3 (c) $\frac{2}{3}$ (d) $\frac{3}{2}$

Solution

Solution:-

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

The reciprocal of a non-zero fraction is obtained by interchanging its numerator and denominator.

Question 6

The product of $\frac{11}{13}$ and 4 is:

(a) $3\frac{5}{13}$ (b) $5\frac{3}{13}$ (c) $13\frac{3}{5}$ (d) $13\frac{5}{3}$

Solution:-

$$\begin{aligned} \text{(a)} \quad & 3\frac{5}{13} \\ &= (\frac{11}{13}) \times 4 \\ &= \frac{44}{13} \\ &= 3\frac{5}{13} \end{aligned}$$

7. The product of 3 and $4\frac{2}{5}$ is :

(a) $17\frac{2}{5}$

(b) $24/5$

(c) $13\frac{1}{5}$

(d) $13\frac{5}{3}$

Solution:-

(c) $13\frac{1}{5}$

First we have to convert the mixed fraction into improper fraction $4\frac{2}{5} = \frac{22}{5}$

Then, $3 \times \frac{22}{5}$

$$= \frac{66}{5}$$

$$= 13\frac{1}{5}$$

8. Pictorial representation of $3 \times \frac{2}{3}$ is:



Solution

Solution:-



In the above figure, three circles are divided into 3 equal parts.

Out of 3 equal parts 2 equal parts are hatched.

Question 7

The product of

3

and $4\frac{2}{5}$ is.:

A.

$$17\frac{2}{5}$$

B.

$$\frac{24}{5}$$

C.

$$13\frac{1}{5}$$

D.

$$5\frac{1}{13}$$

Answer

Correct option: C

Solution

Ans: Option (c) is correct.

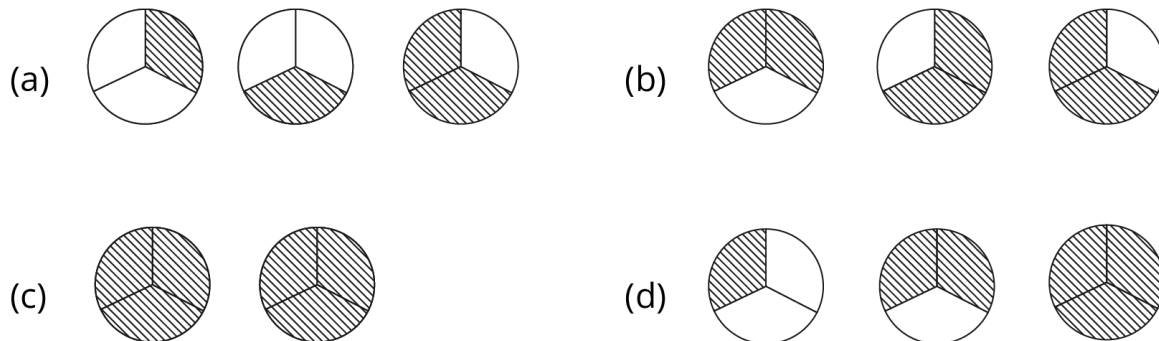
First, we have to convert the mixed fraction into improper fraction $4\frac{2}{5} = \frac{22}{5}$

$$\Rightarrow 3 \times 4\frac{2}{5} = 3 \times \frac{22}{5} = \frac{66}{5}$$

$$= 13\frac{1}{5}$$

Question 8

Pictorial representation of $3 \times \frac{2}{3}$ is:



A.

Option A

B.

Option B

C.

Option C

D.

Option D

Answer

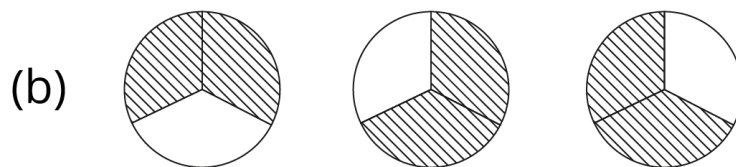
Correct option: B

Solution

Ans: Option (b) is correct.

$$3 \times \frac{2}{3} = \frac{2}{3} + \frac{2}{3} + \frac{2}{3}$$

Therefore, pictorial representation is



Question 9

$1/5 \div 4/5$ equal to:

(a) $4/5$ (b) $1/5$ (c) $5/4$ (d) $1/4$

Solution

Solution:-

(d) $1/4$

$$= 1/5 \div 4/5$$

$$= (1/5) / (4/5)$$

$$= (1/5) \times (5/4)$$

$$= 5/20 \dots [\text{divide both numerator and denominator by 5}]$$

$$= \frac{1}{4}$$

Question 10

The product of 0.03×0.9 is:

(a) 2.7 (b) 0.27 (c) 0.027 (d) 0.0027

Solution

Solution:-

(c) 0.027

0.03×0.9 can be written as $= (3/100) \times (9/10)$

$$= 27/1000$$

On dividing a decimal by 1000, the decimal point is shifted to the left by three places.

$$= 0.027$$

Question 11

$(5/7) \div 6$ is equal to:

(a) $30/7$ (b) $5/42$ (c) $30/42$ (d) $6/7$

Solution

Solution:-

(b) $5/42$

$$= 5/7 \div 6/1$$

$$= (5/7) / (6/1)$$

$$= (5/7) \times (1/6)$$

$$= 5/42$$

Question 12

$5\frac{1}{6} \div 9/2$ is equal to:

(a) $31/6$ (b) $1/27$ (c)

$5\frac{1}{27}$ (d) $31/27$

Solution

Solution:-

(d) $31/27$

First, we have to convert the mixed fraction into an improper fraction

$$5\frac{1}{6} = 31/6$$

Then,

$$= 31/6 \div 9/2$$

$$= (31/6) / (9/2)$$

$$= (31/6) \times (2/9)$$

$$= (31/3) \times (1/9)$$

$$= 31/27$$

Question 13

Which of the following represents $1/3$ of $1/6$?

Solution

Solution:-

(a) $(1/3) + (1/6)$ (b) $(1/3) - (1/6)$

(c) $(1/3) \times (1/6)$ (d) $(1/3) \div (1/6)$

Solution:-

(c) $(1/3) \times (1/6)$

Question 14

$\frac{3}{7}$ of $\frac{2}{5}$ is equal to

- (a) $\frac{5}{12}$ (b) $\frac{5}{35}$ (c) $\frac{1}{35}$ (d) $\frac{6}{35}$

Solution

Solution:-

- (d) $\frac{6}{35}$

$\frac{3}{7}$ of $\frac{2}{5}$ is equal to $= (\frac{3}{7}) \times (\frac{2}{5})$

$$= \frac{6}{35}$$

Question 15

One packet of biscuits requires $2\frac{1}{2}$ cups of flour and $1\frac{2}{3}$ cups of sugar. The estimated total quantity of both ingredients used in 10 such packets of biscuits will be

- (a) less than 30 cups
(b) between 30 cups and 40 cups
(c) between 40 cups and 50 cups
(d) above 50 cups

Solution

Solution:-

- (c) between 40 cups and 50 cups

From the question, it is given that,

One packet of biscuits requires $2\frac{1}{2}$ cups of flour $= \frac{5}{2}$

One packet of biscuits requires $1\frac{2}{3}$ cups of sugar. $= \frac{5}{3}$

Total ingredients for one packet of biscuits $= (\frac{5}{2}) + (\frac{5}{3})$

$$= (15 + 10)/6$$

$$= 25/6$$

Then, the total quantity of both ingredients used in 10 such packets of biscuits $= 10 \times (25/6)$

$$= 5 \times (25/3)$$

$$= 125/3$$

$$=$$

$$41 \frac{2}{3}$$

Question 16

The product of 7 and $6\frac{3}{4}$ is

(a) $42\frac{1}{4}$ (b) $47\frac{1}{4}$ (c) $42\frac{3}{4}$ (d) $47\frac{3}{4}$

Solution

Solution:-

(b) $47\frac{1}{4}$

First, we have to convert the mixed fraction into improper fraction $6\frac{3}{4} = 27/4$

$$= 7 \times (27/4)$$

$$= 189/4$$

$$= 47\frac{1}{4}$$

Question 17

On dividing 7 by $2/5$, the result is

(a) $14/2$ (b) $35/4$ (c) $14/5$ (d) $35/2$

Solution

Solution:-

(d) $35/2$

$$= 7 / (2/5)$$

$$= 7 \times (5/2)$$

$$= 35/2$$

Question 18

$2\frac{2}{3} \div 5$ is equal to

(a) $\frac{8}{15}$ (b) $\frac{40}{3}$ (c) $\frac{40}{5}$ (d) $\frac{8}{3}$

Solution

Solution:-

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

First, we have to convert the mixed fraction into an improper fraction

$$2\frac{2}{3} = \frac{8}{3}$$

Then,

$$= \left(\frac{8}{3}\right) \div 5$$

$$= \left(\frac{8}{3}\right) / \left(\frac{5}{1}\right)$$

$$= \left(\frac{8}{3}\right) \times \left(\frac{1}{5}\right)$$

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

Question 19

$\frac{4}{5}$ of 5 kg apples were used on Monday. The next day $\frac{1}{3}$ of what was left was used. Weight (in kg) of apples left now is

(a) $\frac{2}{7}$ (b) $\frac{1}{14}$ (c) $\frac{2}{3}$ (d) $\frac{4}{21}$

Solution

Solution:-

(c) $\frac{2}{3}$

From the question, it is given that,

$$\frac{4}{5} \text{ of } 5 \text{ kg apples were used on Monday} = \left(\frac{4}{5}\right) \times 5$$

$$= \frac{20}{5}$$

$$= 4 \text{ kg}$$

Then,

The next day $\frac{1}{3}$ of what was left was used = $(\frac{1}{3}) \times 1$

= $\frac{1}{3}$ kg

So, the Weight (in kg) of apples left now is = $1 - (\frac{1}{3})$

= $(3 - 1)/3$

= $\frac{2}{3}$ kg of apples

Question 20

The picture



Interprets

(a) $\frac{1}{4} \div 3$ (b) $3 \times \frac{1}{4}$ (c) $\frac{3}{4} \times 3$ (d) $3 \div \frac{1}{4}$

Solution

Solution:-

(b) $3 \times \frac{1}{4}$

From the given picture, $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$

In Questions 21 to 44, fill in the blanks to make the statements true.

Question 21

Rani ate $\frac{2}{7}$ part of a cake while her brother Ravi ate $\frac{4}{5}$ of the remaining. Part of the cake left is

Solution

Solution:-

Rani ate $\frac{2}{7}$ part of a cake while her brother Ravi ate $\frac{4}{5}$ of the remaining. Part of the cake left is $\frac{1}{7}$.

Now, let us assume total part of cake be 1.

Then, from the question, given that Rani ate $\frac{2}{7}$ part of a cake = $1 - (\frac{2}{7})$

$$= (7 - 2)/7$$

$$= 5/7$$

So, Ravi ate $4/5$ of the remaining cake $= (4/5) \times (5/7)$

$$= 4/7$$

Therefore, the part of the cake left $= (5/7) - (4/7)$

$$= 1/7$$

Question 22

The reciprocal of $3/7$ is

Solution

Solution:-

The reciprocal of $3/7$ is $7/3$

The reciprocal of a non-zero fraction is obtained by interchanging its numerator and denominator.

Question 23

$2/3$ of 27 is

Solution

Solution:-

$2/3$ of 27 is 18.

$$= 2/3 \times 27$$

$$= 2 \times 9$$

$$= 18$$

Question 24

$4/5$ of 45 is

Solution

Solution:-

$\frac{4}{5}$ of 45 is 36.

$$= \frac{4}{5} \times 45$$

$$= 4 \times 9$$

$$= 36$$

Question 25

$4 \times$

$6\frac{1}{3}$ is equal to

Solution

Solution:-

$4 \times$

$6\frac{1}{3}$ is equal to $\frac{76}{3}$

First we have to convert the mixed fraction into an improper fraction

$$6\frac{1}{3} = \frac{19}{3}$$

Then, $4 \times \frac{19}{3}$

$$= \frac{76}{3}$$

Question 26

$\frac{1}{2}$ of

$4\frac{2}{7}$ is

Solution

Solution:-

$\frac{1}{2}$ of

$4\frac{2}{7}$ is $\frac{15}{7}$.

First we have to convert the mixed fraction into an improper fraction

$$4\frac{2}{7} = 30/7$$

Then, $\frac{1}{2} \times (30/7)$

$$= 15/7$$

Question 27

$1/9$ of $6/5$ is

Solution

Solution:-

$1/9$ of $6/5$ is $2/15$.

$$= (1/9) \times (6/5)$$

$$= (1/3) \times (2/5)$$

$$= 2/15$$

Question 28

The lowest form of the product

$$2\frac{3}{7} \times (7/9) \text{ is}$$

Solution

Solution:-

The lowest form of the product

$$2\frac{3}{7} \times (7/9) \text{ is } (17/9) \text{ or}$$

$$1\frac{8}{9}$$

First we have to convert the mixed fraction into an improper fraction

$$2\frac{3}{7} = 17/7$$

Then, $(17/7) \times (7/9)$

$$= 17/9$$

$$= 1\frac{8}{9}$$

Question 29

$(4/5) \div 4$ is equal to

Solution

Solution:-

$(4/5) \div 4$ is equal to $1/5$.

$$= (4/5) \div 4$$

$$= (4/5) \times (1/4)$$

$$= (1/5) \times (1/1)$$

$$= 1/5$$

Question 30

$2/5$ of 25 is

Solution

Solution:-

$2/5$ of 25 is 10

$$= 2/5 \times 25$$

$$= 2 \times 5$$

$$= 10$$

Question 31

$(1/5) \div (5/6) = (1/5) (6/5)$

Solution

Solution:-

$$(1/5) \div (5/6) = (1/5) \times (6/5)$$

While dividing one fraction by another fraction, we multiply the first fraction by the reciprocal of the other.

Question 32

$$3.2 \times 10 = \underline{\hspace{2cm}}$$

Solution

Solution:-

$$3.2 \times 10 = 32$$

To multiply a decimal number by 10, we move the decimal point in the number to the right by as many places as many zeros (0) are at the right of one.

Question 33

$$25.4 \times 1000 = \underline{\hspace{2cm}}$$

Solution

Solution:-

$$25.4 \times 1000 = 25400$$

To multiply a decimal number by 1000, we move the decimal point in the number to the right by as many places as many zeros (0) are at the right of one.

Question 34

$$93.5 \times 100 = \underline{\hspace{2cm}}$$

Solution

Solution:-

$$93.5 \times 100 = 9350$$

To multiply a decimal number by 100, we move the decimal point in the number to the right by as many places as many zeros (0) are at the right of one.

Question 35

$$4.7 \div 10 = \underline{\hspace{2cm}}$$

Solution

Solution:-

$$4.7 \div 10 = 0.47$$

To divide a decimal number by 10, shift the decimal point in the decimal number to the left by as many places as there are zeros over 1, to get the quotient.

$$= 4.7/10$$

$$= 0.47$$

Question 36

$$4.7 \div 100 = \underline{\hspace{2cm}}$$

Solution

Solution:-

$$4.7 \div 100 = 0.047$$

To divide a decimal number by 100, shift the decimal point in the decimal number to the left by as many places as there are zeros over 1, to get the quotient.

$$= 4.7/100$$

$$= 0.047$$

Question 37

$$4.7 \div 1000 = \underline{\hspace{2cm}}$$

Solution

Solution:-

$$4.7 \div 1000 = 0.0047$$

To divide a decimal number by 1000, shift the decimal point in the decimal number to the left by as many places as there are zeros over 1, to get the quotient.

$$= 4.7/1000$$

$$= 0.0047$$

Question 38

The product of two proper fractions is _____ than each of the fractions that are multiplied.

Solution

Solution:-

The product of two proper fractions is less than each of the fractions that are multiplied.

Consider the two proper fractions, $\frac{4}{5}$ and $\frac{2}{4}$

$$= (\frac{4}{5}) \times (\frac{2}{4})$$

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

$$= 0.4$$

Then, 0.4 is multiplied to the proper fraction less than each of the fractions that are multiplied = $(\frac{4}{5}) \times 0.4$

$$= 0.32$$

Question 39

While dividing a fraction by another fraction, we _____ the first fraction by the _____ of the other fraction.

Solution

Solution:-

While dividing a fraction by another fraction, we multiply the first fraction by the reciprocal of the other fraction.

Example,

$$= (1/5) \div (5/6)$$

$$= (1/5) \times (6/5)$$

Question 40

$$8.4 \div = 2.1$$

Solution

Solution:-

$$8.4 \div 4 = 2.1$$

Let us assume the missing fraction be x,

Then,

$$8.4 \div x = 2.1$$

$$8.4/x = 2.1$$

By cross multiplication, we get,

$$x = 8.4/2.1$$

$$x = 84/21 \dots [\text{divide both numerator and denominator by 3}]$$

$$x = 28/7 \dots [\text{divide both numerator and denominator by 7}]$$

$$x = 4$$

Question 41

$$52.7 \div \underline{\hspace{2cm}} = 0.527$$

Solution

Solution:-

$$52.7 \div 100 = 0.527$$

Let us assume the missing fraction be x,

Then,

$$52.7 \div x = 0.527$$

$$52.7/x = 0.527$$

By cross multiplication, we get,

$$x = 52.7/0.527$$

$$x = 52700/527 \dots [\text{divide both numerator and denominator by 527}]$$

$$x = 100$$

Question 42

$$0.5 \text{ ______ } 0.7 = 0.35$$

Solution

Solution:-

$$0.5 \times 0.7 = 0.35$$

While multiplying two decimal numbers, first multiply them as whole numbers. Count the number of digits to the right of the decimal point in both the decimal numbers. Add the number of digits counted. Put the decimal point in the product by counting the number of digits equal to the sum obtained from its rightmost place.

$$= 0.5 \times 0.7$$

$$= 5 \times 7$$

$$= 35$$

$$= 0.35$$

Question 43

$$2 \frac{5}{3} = 10/3$$

Solution

Solution:-

$$2 \times (5/3) = 10/3$$

Question 44

$$2.001 \div 0.003 = \underline{\hspace{2cm}}$$

Solution

Solution:-

$$2.001 \div 0.003 = 667$$

$$= 2.001/0.003$$

$$= 2001/3 \dots [\text{divide both numerator and denominator by 3}]$$

$$= 667$$

In each of the Questions 45 to 54, state whether the statement is True or False.

Question 45

The reciprocal of a proper fraction is a proper fraction.

Solution

Solution:-

False.

Consider the proper fraction $5/8$.

Then, reciprocal of $5/8 = 8/5$.

Therefore the obtained fraction is improper fraction.

Question 46

The reciprocal of an improper fraction is an improper fraction.

Solution

Solution:-

False.

Consider the improper fraction $5/3$.

Then, the reciprocal of $5/3 = 3/5$.

Therefore the obtained fraction is a proper fraction.

Question 47

Product of two fractions = (Product of their denominators)/ (Product of their numerators)

Solution

Solution:-

False.

Product of two fractions = (Product of their numerators)/ (Product of their denominators)

Question 48

The product of two improper fractions is less than both the fractions.

Solution

Solution:-

False.

The product of two improper fractions is more than each of the fractions that are multiplied.

Consider the two improper fractions, $5/4$ and $4/2$

$$= (5/4) \times (4/2)$$

$$= 5/2$$

$$= 2.5$$

Then, 2.5 is multiplied to the improper fraction more than each of the fractions that are multiplied = $(5/4) \times 2.5$

$$= 3.125$$

$$\text{And } (4/2) \times 2.5 = 5$$

Question 49

A reciprocal of a fraction is obtained by inverting it upside down.

Solution

Solution:-

True.

Reciprocal of $\frac{8}{9} = \frac{9}{8}$

Question 50

To multiply a decimal number by 1000, we move the decimal point in the number to the right by three places.

Solution

Solution:-

True.

To multiply a decimal number by 1000, we move the decimal point in the number to the right by as many places as many zeros (0) are at the right of one.

$$2.5 \times 1000 = 2500$$

Question 51

To divide a decimal number by 100, we move the decimal point in the number to the left by two places.

Solution

Solution:-

True.

Example: $3.4/100 = 0.034$

Question 52

1 is the only number which is its own reciprocal.

Solution

Solution:-

True.

We know that, if the denominator is not given, then we have to assume 1 always.

So, the reciprocal of $1/1 = 1/1$

Question 53

$2/3$ of 8 is same as $(2/3) \div 8$

Solution

Solution:-

False.

$2/3$ of 8 = $(2/3) \times 8$

Question 54

The reciprocal of $4/7$ is $4/7$

Solution

Solution:-

False.

The reciprocal of $4/7$ is $7/4$.

Question 55

If 5 is added to both the numerator and the denominator of the fraction $5/9$, will the value of the fraction be changed? If so, will the value increase or decrease?

Solution

Solution:-

If 5 is added to both the numerator and denominator of the fraction $5/9 = 10/14$

But, $5/9 \neq 10/14$

Yes, the value of the fraction is changed, and also, the value is increased.

Question 56

What happens to the value of a fraction if the denominator of the fraction is decreased while the numerator is kept unchanged?

Solution

Solution:-

The value of a fraction is increased when the denominator of the fraction is decreased while the numerator is kept unchanged.

Example: $\frac{1}{4} = 0.25$

$\frac{1}{2} = 0.5$

Question 57

Which letter comes $2/5$ of the way among A and J?

Solution

Solution:-

There are 10 letters from A to J

So, $2/5$ of 10 = $2/5 \times 10$

= 2×2

= 4

The 4th letter from A to J is D.

Therefore, D comes $2/5$ of the way among A and J.

Question 58

If $2/3$ of a number is 10, then what is 1.75 times of that number?

Solution

Solution:-

From the question, it is given that,

$\frac{2}{3}$ of a number is 10.

Let us assume the number be 'P'.

Then,

$$\frac{2}{3} \text{ of } P = 10$$

$$\frac{2}{3} \times P = 10$$

By cross multiplication, we get,

$$P = 10 \times \frac{3}{2}$$

$$P = 5 \times 3$$

$$P = 15$$

So, the number is 15

Again it is given in the question that, 1.75 times of that number = ?

$$= 1.75 \text{ of } 15$$

$$= 1.75 \times 15$$

$$= 26.25$$

Question 59

In a class of 40 students, $\frac{1}{5}$ of the total number of students like to eat rice only, $\frac{2}{5}$ of the total number of students like to eat chapati only, and the remaining students like to eat both. What fraction of the total number of students like to eat both?

Solution

Solution:-

From the question, it is given that,

Number of students in a class = 40 students

$\frac{1}{5}$ of the total number of students like to eat rice only = $\frac{1}{5} \times 40$

$$= 1 \times 8$$

= 8 students

$\frac{2}{5}$ of the total number of students like to eat chapati only = $\frac{2}{5} \times 40$

$$= 2 \times 8$$

= 16 students

Then,

Number of students like to eat both = $40 - (8 + 16)$

$$= 40 - 24$$

= 16 students

Fraction of the total number of students like to eat both = $\frac{16}{40} = \frac{2}{5}$

Question 60

Renu completed $\frac{2}{3}$ part of her homework in 2 hours. How much part of her homework had she completed in $1\frac{1}{4}$ hours?

Solution

Solution:-

From the question, it is given that,

Renu completed $\frac{2}{3}$ part of her homework in 2 hours.

Let us assume the total part of the homework be 'P'.

Then,

$$\frac{2}{3} \text{ of } P = 2$$

$$\frac{2}{3} \times P = 2$$

By cross multiplication, we get,

$$P = 2 \times \frac{3}{2}$$

$P = 3$ homework

So, part of her homework she had completed in $1\frac{1}{4}$ hours i.e. $\frac{5}{4}$ hours

Let us assume part of the homework she had completed in $\frac{5}{4}$ hours be $= Q$

Then,

$$Q \text{ of } 3 = \frac{5}{4}$$

$$Q \times 3 = \frac{5}{4}$$

By cross multiplication, we get,

$$Q = \left(\frac{5}{4}\right) \times \left(\frac{1}{3}\right)$$

$$Q = \frac{5}{12}$$

Therefore, Renu completed $\frac{5}{12}$ part of her homework in $\frac{5}{4}$ hours.

Question 61

Reemu read $\left(\frac{1}{5}\right)^{\text{th}}$ pages of a book. If she reads further 40 pages, she would have read $\left(\frac{7}{10}\right)^{\text{th}}$ pages of the book. How many pages are left to be read?

Solution

Solution:-

From the question it is given that,

Reemu read $\left(\frac{1}{5}\right)^{\text{th}}$ pages of a book.

Let us assume the total number of pages in the book be 'P'.

Then, number of pages read by Reemu $= \left(\frac{1}{5}\right)$ of P

$$= \left(\frac{1}{5}\right) \times P$$

And also, it is given in the question, If she reads further 40 pages, she would have read $\left(\frac{7}{10}\right)^{\text{th}}$ pages of the book. $= \left(\frac{7}{10}\right) \times P$

So,

$$\left(\left(\frac{1}{5}\right) \times P\right) + 40 = \left(\frac{7}{10}\right) \times P$$

$$(P + 200)/5 = (7P/10)$$

By cross multiplication we get,

$$2P + 400 = 7P$$

$$5P = 400$$

$$P = 400/5 \dots [\text{divide both numerator and denominator by 5}]$$

$$P = 80$$

Then, pages read by Reemu = Total pages – Pages read

$$P - (7P/10) = (3P/10)$$

$$(3/10) \times 80$$

24 pages

Therefore, 24 pages are left to be read.

62. Write the number in the box such that

$$\frac{3}{7} \times \text{} = \frac{15}{98}$$

Solution:-

Let us assume the missing number be P.

Then,

$$(3/7) \times P = 15/98$$

By cross multiplication we get,

$$P = (15/98) \times (7/3)$$

$$P = (5/14) \times (1/1)$$

$$P = 5/14$$

Therefore,

$$\frac{3}{7} \times \boxed{\frac{5}{14}} = \frac{15}{98}$$
