

EXERCISE 2A

PAGE: 21

1. Compare the fraction:

i. $(\frac{5}{8})$ and $(\frac{7}{12})$ **Solution:-**

By cross multiplication, we have:

$$5 \times 12 = 60 \text{ and } 8 \times 7 = 56$$

But,

$$60 > 56$$

$$\therefore (\frac{5}{8}) > (\frac{7}{12})$$

ii. $(\frac{5}{9})$ and $(\frac{11}{15})$ **Solution:-**

By cross multiplication, we have:

$$5 \times 15 = 75 \text{ and } 9 \times 11 = 99$$

But,

$$75 < 99$$

$$\therefore (\frac{5}{9}) < (\frac{11}{15})$$

iii. $(\frac{11}{12})$ and $(\frac{15}{16})$ **Solution:-**

By cross multiplication, we have:

$$11 \times 16 = 176 \text{ and } 12 \times 15 = 180$$

But,

$$176 < 180$$

$$\therefore (\frac{11}{12}) < (\frac{15}{16})$$

2. Arrange the following fraction in ascending order :

i. $(\frac{3}{4})$, $(\frac{5}{6})$, $(\frac{7}{9})$, $(\frac{11}{12})$ **Solution:-**LCM of 4, 6, 9, 12 = $2 \times 2 \times 3 \times 3 = 36$

Now, let us change each of the given fraction into an equivalent fraction having 36 as the denominator.

$$[(\frac{3}{4}) \times (\frac{9}{9})] = (\frac{27}{36})$$

$$[(\frac{5}{6}) \times (\frac{6}{6})] = (\frac{30}{36})$$

$$[(\frac{7}{9}) \times (\frac{4}{4})] = (\frac{28}{36})$$

$$[(\frac{11}{12}) \times (\frac{3}{3})] = (\frac{33}{36})$$

Clearly,

$$(\frac{27}{36}) < (\frac{28}{36}) < (\frac{30}{36}) < (\frac{33}{36})$$

Hence,

$$(\frac{3}{4}) < (\frac{7}{9}) < (\frac{5}{6}) < (\frac{11}{12})$$

Hence, the given fractions in ascending order are $(\frac{3}{4})$, $(\frac{7}{9})$, $(\frac{5}{6})$, $(\frac{11}{12})$

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By cross multiplication, we have:

$$5 \times 15 = 75 \text{ and } 9 \times 11 = 99$$

But,

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By cross multiplication, we have:

$$11 \times 16 = 176 \text{ and } 12 \times 15 = 180$$

But,

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$$(\frac{3}{4}) < (\frac{7}{9}) < (\frac{5}{6}) < (\frac{11}{12})$$

Hence, the given fractions in ascending order are $(\frac{3}{4})$, $(\frac{7}{9})$, $(\frac{5}{6})$, $(\frac{11}{12})$

RS Aggarwal Solutions for Class 7 Maths chapter 1
Integers

$$=-1738$$

iv. **-489 and -324**

Solution:-

We know that,

The above question can be written as,

$$=[(-489) + (-324)]$$

Then,

Using the rule for addition of integers with same signs, we have to do addition:

$$=-489-324$$

$$=-(489+324)$$

(Take out the -ve sign as common and do the addition)

$$=-813$$

v. **-1000 and 438**

Solution:-

We know that,

The above question can be written as,

$$=[-1000+438]$$

Then,

Using the rule for addition of integers with unlike signs, we have to do subtraction:

$$=-(1000-438)$$

(Take out the -ve sign outside and do subtract smaller from bigger number)

$$=-562$$

vi. **-238 and 500**

Solution:-

We know that,

The above question can be written as,

$$=[-238+500]$$

Then,

Using the rule for addition of integers with unlike signs, we have to do subtraction:

$$=-(238-500)$$

(Take out the -ve sign outside and do subtract smaller from bigger number)

$$=262$$

3. Find the additive inverse of:

i. **-83**

Solution:-

$$=83$$

(\therefore Additive inverse of the integer is the change of sign i.e. positive to negative and negative to positive with the same number)

ii. **256**

Solution:-

$$=-256$$

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Integers

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RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$= [3(4/5)] = (18/5)$$

$$= [2(3/10)] = (23/10)$$

$$= [1(1/15)] = (16/15)$$

Then,

$$(19/5) + (23/10) + (16/15)$$

LCM of 5, 10, 15 = 30

Now, let us change each of the given fraction into an equivalent fraction having 30 as the denominator.

$$= [(19/5) \times (6/6)] = (114/30)$$

$$= [(23/10) \times (3/3)] = (69/30)$$

$$= [(16/15) \times (2/2)] = (32/30)$$

Now,

$$= (114/30) + (69/30) + (32/30)$$

$$= [(114+69+32)/30]$$

$$= (215/30)$$

$$= [7 (5/30)]$$

$$= [7 (1/5)]$$

6. Find the difference:

i. $(5/7) - (2/7)$

Solution:-

The subtraction of fraction can be performed in a manner similar to that of addition.

For subtracting two like fractions, the numerators are subtract and the denominator remains the same.

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

$$= (3/7)$$

ii. $(5/6) - (3/4)$

Solution:-

For subtraction of two unlike fractions, first change them to the like fractions.

LCM of 6, 4 = 12

Now, let us change each of the given fraction into an equivalent fraction having 12 as the denominator.

$$= [(5/6) \times (2/2)] = (10/12)$$

$$= [(3/4) \times (3/3)] = (9/12)$$

Now,

$$= (10/12) - (9/12)$$

$$= [(10 - 9)/12]$$

$$= (1/12)$$

iii. $[3(1/5)] - (7/10)$

Solution:-

Convert mixed fraction into improper fraction,

$$= [3(1/5)] = (16/5)$$

$$= (16/5) - (7/10)$$

For subtraction of two unlike fractions, first change them to the like fractions.

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$= [3(4/5)] = (18/5)$$

$$= [2(3/10)] = (23/10)$$

$$= [1(1/15)] = (16/15)$$

Then,

$$(19/5) + (23/10) + (16/15)$$

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Now,

$$= (114/30) + (69/30) + (32/30)$$

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Solution:-

The subtraction of fraction can be performed in a manner similar to that of addition.

For subtracting two like fractions, the numerators are subtract and the denominator remains the same.

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

$$= (3/7)$$

ii. $(5/6) - (3/4)$

Solution:-

For subtraction of two unlike fractions, first change them to the like fractions.

LCM of 6, 4 = 12

Now, let us change each of the given fraction into an equivalent fraction having 12 as the denominator.

$$= [(5/6) \times (2/2)] = (10/12)$$

$$= [(3/4) \times (3/3)] = (9/12)$$

Now,

$$= (10/12) - (9/12)$$

$$= [(10 - 9)/12]$$

$$= (1/12)$$

iii. $[3(1/5)] - (7/10)$

Solution:-

Convert mixed fraction into improper fraction,

$$= [3(1/5)] = (16/5)$$

$$= (16/5) - (7/10)$$

For subtraction of two unlike fractions, first change them to the like fractions.

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Fractions.

LCM of 5, 10 = 10

Now, let us change each of the given fraction into an equivalent fraction having 10 as the denominator.

$$= [(16/5) \times (2/2)] = (32/10)$$

$$= [(7/10) \times (1/1)] = (7/10)$$

Then,

$$= (32/10) - (7/10)$$

$$= (32-7)/10$$

$$= (25/10)$$

... [\div by 5]

$$= (5/2)$$

$$= [2(1/2)]$$

iv. **7 - [4 (2/3)]**

Solution:-

Convert mixed fraction into improper fraction, and then find the difference.

$$= [4(2/3)] = (14/3)$$

$$= 7 - (14/3)$$

$$= (21-14)/3$$

$$= (7/3)$$

$$= [2 (1/3)]$$

v. **[3(3/10)] - [1(7/15)]**

Solution:-

Convert mixed fraction into improper fraction, and then find the difference.

$$= [3(3/10)] = (33/10)$$

$$= [1(7/15)] = (22/15)$$

We get,

$$= (33/10) - (22/15)$$

LCM of 10, 15 = 30

Now, let us change each of the given fraction into an equivalent fraction having 30 as the denominator.

$$= [(33/10) \times (3/3)] = (99/30)$$

$$= [(22/15) \times (2/2)] = (44/30)$$

Then,

$$= (99/30) - (44/30)$$

$$= (99 - 44)/30$$

$$= (55/30)$$

$$= (11/6)$$

$$= [1(5/6)]$$

vi. **[2(5/9)] - [1(7/15)]**

Solution:-

Convert mixed fraction into improper fraction, and then find the difference.

$$= [2(5/9)] = (23/9)$$

$$= [1(7/15)] = (22/15)$$

We get,

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Fractions.

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Then,

$$= (32/10) - (7/10)$$

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$$= (25/10)$$

... [\div by 5]

$$= (5/2)$$

$$= [2(1/2)]$$

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Solution:-

Convert mixed fraction into improper fraction, and then find the difference.

$$= [4(2/3)] = (14/3)$$

$$= 7 - (14/3)$$

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Convert mixed fraction into improper fraction, and then find the difference.

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Now, let us change each of the given fraction into an equivalent fraction having 30 as the denominator.

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Then,

$$= (99/30) - (44/30)$$

$$= (99 - 44)/30$$

$$= (55/30)$$

$$= (11/6)$$

$$= [1(5/6)]$$

vi. **[2(5/9)] - [1(7/15)]**

Solution:-

Convert mixed fraction into improper fraction, and then find the difference.

$$= [2(5/9)] = (23/9)$$

$$= [1(7/15)] = (22/15)$$

We get,

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$= (23/9) - (22/15)$$

$$\text{LCM of } 9, 15 = 45$$

Now, let us change each of the given fraction into an equivalent fraction having 45 as the denominator.

$$= [(23/9) \times (5/5)] = (115/45)$$

$$= [(22/15) \times (3/3)] = (66/45)$$

Then,

$$= (115/45) - (66/45)$$

$$= (115 - 66)/45$$

$$= (49/45)$$

$$= [1(4/45)]$$

7. Simplify:

i. $(2/3) + (5/6) - (1/9)$

Solution:-

$$\text{LCM of } 3, 6, 9 = 18$$

Now, let us change each of the given fraction into an equivalent fraction having 18 as the denominator.

$$= (2/3) \times (6/6) = (12/18)$$

$$= (5/6) \times (3/3) = (15/18)$$

$$= (1/9) \times (2/2) = (2/18)$$

Then,

$$= (12/18) + (15/18) - (2/18)$$

$$= (12 + 15 - 2)/18$$

$$= (27 - 2)/18$$

$$= (25/18)$$

$$= [1(7/18)]$$

ii. $8 - [4(1/2)] - [2(1/4)]$

Solution:-

Convert mixed fraction into improper fraction, and then find the difference.

$$= [4(1/2)] = (9/2)$$

$$= [2(1/4)] = (9/4)$$

$$\text{LCM of } 1, 2, 4 = 4$$

Now, let us change each of the given fraction into an equivalent fraction having 4 as the denominator.

$$= (9/2) \times (2/2) = (18/4)$$

$$= (9/4) \times (1/1) = (9/4)$$

$$= (8/1) \times (4/4) = (32/4)$$

Then,

$$= (32/4) - (18/4) - (9/4)$$

$$= [(32 - 18 - 9)/4]$$

$$= [(32 - 27)/4]$$

$$= (5/4)$$

$$= [1(1/4)]$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
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$$= (23/9) - (22/15)$$

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Now, let us change each of the given fraction into an equivalent fraction having 45 as the denominator.

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$$= (115 - 66)/45$$

$$= (49/45)$$

$$= [1(4/45)]$$

7. Simplify:

i. $(2/3) + (5/6) - (1/9)$

Solution:-

$$\text{LCM of } 3, 6, 9 = 18$$

Now, let us change each of the given fraction into an equivalent fraction having 18 as the denominator.

$$= (2/3) \times (6/6) = (12/18)$$

$$= (5/6) \times (3/3) = (15/18)$$

$$= (1/9) \times (2/2) = (2/18)$$

Then,

$$= (12/18) + (15/18) - (2/18)$$

$$= (12 + 15 - 2)/18$$

$$= (27 - 2)/18$$

$$= (25/18)$$

$$= [1(7/18)]$$

ii. $8 - [4(1/2)] - [2(1/4)]$

Solution:-

Convert mixed fraction into improper fraction, and then find the difference.

$$= [4(1/2)] = (9/2)$$

$$= [2(1/4)] = (9/4)$$

$$\text{LCM of } 1, 2, 4 = 4$$

Now, let us change each of the given fraction into an equivalent fraction having 4 as the denominator.

$$= (9/2) \times (2/2) = (18/4)$$

$$= (9/4) \times (1/1) = (9/4)$$

$$= (8/1) \times (4/4) = (32/4)$$

Then,

$$= (32/4) - (18/4) - (9/4)$$

$$= [(32 - 18 - 9)/4]$$

$$= [(32 - 27)/4]$$

$$= (5/4)$$

$$= [1(1/4)]$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

iii. $[8\frac{5}{6}] - [3\frac{3}{8}] + [1\frac{7}{12}]$

Solution:-

First convert each mixed fraction into improper fraction.

We get,

$$\begin{aligned}
 &= [8\frac{5}{6}] = \frac{53}{6} \\
 &= [3\frac{3}{8}] = \frac{27}{8} \\
 &= [1\frac{7}{12}] = \frac{19}{12}
 \end{aligned}$$

Then,

$$\frac{53}{6} - \frac{27}{8} - \frac{19}{12}$$

$$\text{LCM of } 6, 8, 12 = 24$$

Now, let us change each of the given fraction into an equivalent fraction having 24 as the denominator.

$$\begin{aligned}
 &= [\frac{53}{6} \times \frac{4}{4}] = \frac{212}{24} \\
 &= [\frac{27}{8} \times \frac{3}{3}] = \frac{81}{24} \\
 &= [\frac{19}{12} \times \frac{2}{2}] = \frac{38}{24}
 \end{aligned}$$

Now,

$$\begin{aligned}
 &= \frac{212}{24} - \frac{81}{24} - \frac{38}{24} \\
 &= [\frac{212 - 81 - 38}{24}] \\
 &= [\frac{250 - 81}{24}] \\
 &= \frac{169}{24} \\
 &= [7\frac{1}{24}]
 \end{aligned}$$

8. Aneeta bought
- $[3\frac{3}{4}]$
- kg apples and
- $[4\frac{1}{2}]$
- kg guava. What is the total weight of fruits purchased by her?

Solution:-The total weight of fruits bought by Aneeta = $[3\frac{3}{4}] + [4\frac{1}{2}]$

We have,

First convert each mixed fraction into improper fraction

$$\begin{aligned}
 &= [3\frac{3}{4}] = \frac{15}{4} \\
 &= [4\frac{1}{2}] = \frac{9}{2}
 \end{aligned}$$

Then,

$$= \frac{15}{4} + \frac{9}{2}$$

LCM of 4, 2 = 4

Now, let us change each of the given fraction into an equivalent fraction having 4 as the denominator

$$\begin{aligned}
 &= \frac{15}{4} \times \frac{1}{1} = \frac{15}{4} \\
 &= \frac{9}{2} \times \frac{2}{2} = \frac{18}{4} \\
 &= \frac{15}{4} + \frac{18}{4} \\
 &= \frac{15 + 18}{4} \\
 &= \frac{33}{4} \\
 &= [8\frac{1}{4}]
 \end{aligned}$$

The total weight of fruits purchased by Aneeta is $[8\frac{1}{4}]$ kg

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

iii. $[8\frac{5}{6}] - [3\frac{3}{8}] + [1\frac{7}{12}]$

Solution:-

First convert each mixed fraction into improper fraction.

We get,

$$\begin{aligned}
 &= [8\frac{5}{6}] = \frac{53}{6} \\
 &= [3\frac{3}{8}] = \frac{27}{8} \\
 &= [1\frac{7}{12}] = \frac{19}{12}
 \end{aligned}$$

Then,

$$\frac{53}{6} - \frac{27}{8} - \frac{19}{12}$$

$$\text{LCM of } 6, 8, 12 = 24$$

Now, let us change each of the given fraction into an equivalent fraction having 24 as the denominator.

$$\begin{aligned}
 &= \left[\frac{53}{6} \times \frac{4}{4}\right] = \frac{212}{24} \\
 &= \left[\frac{27}{8} \times \frac{3}{3}\right] = \frac{81}{24} \\
 &= \left[\frac{19}{12} \times \frac{2}{2}\right] = \frac{38}{24}
 \end{aligned}$$

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 &= \frac{212}{24} - \frac{81}{24} - \frac{38}{24} \\
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 &= \frac{250 - 81}{24} \\
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 \end{aligned}$$

8. Aneeta bought
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- $4\frac{1}{2}$
- kg guava. What is the total weight of fruits purchased by her?

Solution:-The total weight of fruits bought by Aneeta = $3\frac{3}{4} + 4\frac{1}{2}$

We have,

First convert each mixed fraction into improper fraction

$$\begin{aligned}
 &= [3\frac{3}{4}] = \frac{15}{4} \\
 &= [4\frac{1}{2}] = \frac{9}{2}
 \end{aligned}$$

Then,

$$= \frac{15}{4} + \frac{9}{2}$$

LCM of 4, 2 = 4

Now, let us change each of the given fraction into an equivalent fraction having 4 as the denominator

$$\begin{aligned}
 &= \frac{15}{4} \times \frac{1}{1} = \frac{15}{4} \\
 &= \frac{9}{2} \times \frac{2}{2} = \frac{18}{4} \\
 &= \frac{15}{4} + \frac{18}{4} \\
 &= \frac{15 + 18}{4} \\
 &= \frac{33}{4} \\
 &= [8\frac{1}{4}]
 \end{aligned}$$

The total weight of fruits purchased by Aneeta is $8\frac{1}{4}$ kg

EXERCISE 2B

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1. Find the product:

i. $(\frac{3}{5}) \times (\frac{7}{11})$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (3 \times 7) / (5 \times 11)$$

$$= (21/55)$$

ii. $(\frac{5}{8}) \times (\frac{4}{7})$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (5 \times 4) / (8 \times 7)$$

$$= (20/56)$$

... [\div by 4]

$$= (5/14)$$

iii. $(\frac{4}{9}) \times (\frac{15}{16})$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (4 \times 15) / (9 \times 16)$$

$$= (60/144)$$

... [\div by 12]

$$= (5/12)$$

iv. $(\frac{2}{5}) \times 15$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (2 \times 15) / (5 \times 1)$$

$$= (30/5)$$

... [\div by 5]

$$= 6$$

v. $(\frac{8}{15}) \times 20$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (8 \times 20) / (15 \times 1)$$

$$= (160/15)$$

... [\div by 5]

$$= (32/3)$$

$$= [10(2/3)]$$

EXERCISE 2B

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1. Find the product:

i. $(\frac{3}{5}) \times (\frac{7}{11})$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (3 \times 7) / (5 \times 11)$$

$$= (21/55)$$

ii. $(\frac{5}{8}) \times (\frac{4}{7})$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (5 \times 4) / (8 \times 7)$$

$$= (20/56)$$

... [\div by 4]

$$= (5/14)$$

iii. $(\frac{4}{9}) \times (\frac{15}{16})$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (4 \times 15) / (9 \times 16)$$

$$= (60/144)$$

... [\div by 12]

$$= (5/12)$$

iv. $(\frac{2}{5}) \times 15$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (2 \times 15) / (5 \times 1)$$

$$= (30/5)$$

... [\div by 5]

$$= 6$$

v. $(\frac{8}{15}) \times 20$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (8 \times 20) / (15 \times 1)$$

$$= (160/15)$$

... [\div by 5]

$$= (32/3)$$

$$= [10(2/3)]$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

vi. $(\frac{5}{8}) \times 1000$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (5 \times 1000) / (8 \times 1) \\ &= (5000/8) && \dots [\div \text{ by } 8] \\ &= 625 \end{aligned}$$

vii. $[3(\frac{1}{8})] \times (16)$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (25/8) \times (16/1) \\ &= (25 \times 16) / (8 \times 1) \\ &= (400/8) && \dots [\div \text{ by } 8] \\ &= 50 \end{aligned}$$

viii. $[2(\frac{4}{15})] \times (12)$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (34/15) \times (12/1) \\ &= (34 \times 12) / (15 \times 1) \\ &= (408/15) && \dots [\div \text{ by } 3] \\ &= (136/5) \\ &= [27(\frac{1}{5})] \end{aligned}$$

ix. $[3(\frac{6}{7})] \times [4(\frac{2}{3})]$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (27/7) \times (14/3) \\ &= (27 \times 14) / (7 \times 3) \\ &= (378/21) && \dots [\div \text{ by } 21] \\ &= 18 \end{aligned}$$

x. $[9(\frac{1}{2})] \times [1(\frac{9}{19})]$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

vi. $(\frac{5}{8}) \times 1000$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (5 \times 1000) / (8 \times 1) \\ &= (5000/8) && \dots [\div \text{ by } 8] \\ &= 625 \end{aligned}$$

vii. $[3(\frac{1}{8})] \times (16)$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (25/8) \times (16/1) \\ &= (25 \times 16) / (8 \times 1) \\ &= (400/8) && \dots [\div \text{ by } 8] \\ &= 50 \end{aligned}$$

viii. $[2(\frac{4}{15})] \times (12)$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (34/15) \times (12/1) \\ &= (34 \times 12) / (15 \times 1) \\ &= (408/15) && \dots [\div \text{ by } 3] \\ &= (136/5) \\ &= [27(1/5)] \end{aligned}$$

ix. $[3(\frac{6}{7})] \times [4(\frac{2}{3})]$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

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x. $[9(\frac{1}{2})] \times [1(\frac{9}{19})]$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

Then,

$$\begin{aligned} &= (19/2) \times (28/19) \\ &= (19 \times 28) / (2 \times 19) \\ &= (532/38) \\ &= 14 \end{aligned}$$

xi. $[4(1/8)] \times [2(10/11)]$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (33/8) \times (32/11) \\ &= (33 \times 32) / (8 \times 11) \\ &= (1056/88) \\ &= 12 \end{aligned}$$

xii. $[5(5/6)] \times [1(5/7)]$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (35/6) \times (12/7) \\ &= (35 \times 12) / (6 \times 7) \\ &= (420/42) \\ &= 10 \end{aligned}$$

2. Simplify:

i. $(2/3) \times (5/44) \times (33/35)$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (2 \times 5 \times 33) / (3 \times 44 \times 35)$$

On simplifying we get,

$$\begin{aligned} &= (1 \times 1 \times 11) / (1 \times 22 \times 7) \\ &= (11/154) \\ &= (1/14) \end{aligned}$$

ii. $(12/25) \times (15/28) \times (35/36)$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (12 \times 15 \times 35) / (25 \times 28 \times 36)$$

On simplifying we get,

$$= (1 \times 3 \times 5) / (5 \times 4 \times 3)$$

Again simplifying we get,

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

Then,

$$\begin{aligned} &= (19/2) \times (28/19) \\ &= (19 \times 28) / (2 \times 19) \\ &= (532/38) \\ &= 14 \end{aligned}$$

xi. $[4(1/8)] \times [2(10/11)]$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$\begin{aligned} &= (33/8) \times (32/11) \\ &= (33 \times 32) / (8 \times 11) \\ &= (1056/88) \\ &= 12 \end{aligned}$$

xii. $[5(5/6)] \times [1(5/7)]$

Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

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Solution:-

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (12 \times 15 \times 35) / (25 \times 28 \times 36)$$

On simplifying we get,

$$= (1 \times 3 \times 5) / (5 \times 4 \times 3)$$

Again simplifying we get,

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

Then,
 $= (45 \times 5) / (1 \times 9)$
On simplifying we get,
 $= (5 \times 5) / (1 \times 1)$
 $= 25$

iv. **(7/50) of 1000****Solution:-**

We have:

$$= (7/50) \text{ of } (1000/1)$$

This can be written as,

$$= (1000/1) \times (7/50)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (1000 \times 7) / (1 \times 50)$$

On simplifying we get,

$$= (20 \times 7) / (1 \times 1)$$

$$= 140$$

v. **(3/20) of 1020****Solution:-**

We have:

$$= (3/20) \text{ of } (1020/1)$$

This can be written as,

$$= (1020/1) \times (3/20)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (1020 \times 3) / (1 \times 20)$$

On simplifying we get,

$$= (51 \times 3) / (1 \times 1)$$

$$= 153$$

vi. **(5/11) of ₹ 220****Solution:-**

We have:

$$= (5/11) \text{ of } (220/1)$$

This can be written as,

$$= (220/1) \times (5/11)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (220 \times 5) / (1 \times 11)$$

On simplifying we get,

$$= (20 \times 5) / (1 \times 1)$$

$$= ₹ 100$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

Then,
 $= (45 \times 5) / (1 \times 9)$
On simplifying we get,
 $= (5 \times 5) / (1 \times 1)$
 $= 25$

iv. **(7/50) of 1000**

Solution:-

We have:

$$= (7/50) \text{ of } (1000/1)$$

This can be written as,

$$= (1000/1) \times (7/50)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (1000 \times 7) / (1 \times 50)$$

On simplifying we get,

$$= (20 \times 7) / (1 \times 1)$$

$$= 140$$

v. **(3/20) of 1020**

Solution:-

We have:

$$= (3/20) \text{ of } (1020/1)$$

This can be written as,

$$= (1020/1) \times (3/20)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (1020 \times 3) / (1 \times 20)$$

On simplifying we get,

$$= (51 \times 3) / (1 \times 1)$$

$$= 153$$

vi. **(5/11) of ₹ 220**

Solution:-

We have:

$$= (5/11) \text{ of } (220/1)$$

This can be written as,

$$= (220/1) \times (5/11)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (220 \times 5) / (1 \times 11)$$

On simplifying we get,

$$= (20 \times 5) / (1 \times 1)$$

$$= ₹ 100$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

By Converting mixed fraction into improper fraction we get,

$$= (49/16) \times (52/7) \times (64/39)$$

$$= (49 \times 52 \times 64) / (16 \times 7 \times 39)$$

On simplifying we get,

$$= (7 \times 4 \times 4) / (1 \times 1 \times 3)$$

$$= (112) / (3)$$

$$= [37(1/3)]$$

3. Find :**i. (1/3) of 24**

Solution:-

We have:

$$= (1/3) \text{ of } (24/1)$$

This can be written as,

$$= (24/1) \times (1/3)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (24 \times 1) / (1 \times 3)$$

$$= (24/3)$$

$$= 8$$

ii. (3/4) of 32

Solution:-

We have:

$$= (3/4) \text{ of } (32/1)$$

This can be written as,

$$= (32/1) \times (3/4)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (32 \times 3) / (1 \times 4)$$

On simplifying we get,

$$= (8 \times 3) / (1 \times 1)$$

$$= 24$$

iii. (5/9) of 45

Solution:-

We have:

$$= (5/9) \text{ of } (45/1)$$

This can be written as,

$$= (45/1) \times (5/9)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

By Converting mixed fraction into improper fraction we get,

$$= (49/16) \times (52/7) \times (64/39)$$

$$= (49 \times 52 \times 64) / (16 \times 7 \times 39)$$

On simplifying we get,

$$= (7 \times 4 \times 4) / (1 \times 1 \times 3)$$

$$= (112) / (3)$$

$$= [37(1/3)]$$

3. Find :**i. (1/3) of 24**

Solution:-

We have:

$$= (1/3) \text{ of } (24/1)$$

This can be written as,

$$= (24/1) \times (1/3)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (24 \times 1) / (1 \times 3)$$

$$= (24/3)$$

$$= 8$$

ii. (3/4) of 32

Solution:-

We have:

$$= (3/4) \text{ of } (32/1)$$

This can be written as,

$$= (32/1) \times (3/4)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (32 \times 3) / (1 \times 4)$$

On simplifying we get,

$$= (8 \times 3) / (1 \times 1)$$

$$= 24$$

iii. (5/9) of 45

Solution:-

We have:

$$= (5/9) \text{ of } (45/1)$$

This can be written as,

$$= (45/1) \times (5/9)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

Then,
 $= (45 \times 5) / (1 \times 9)$
On simplifying we get,
 $= (5 \times 5) / (1 \times 1)$
 $= 25$

iv. **(7/50) of 1000**

Solution:-

We have:

$$= (7/50) \text{ of } (1000/1)$$

This can be written as,

$$= (1000/1) \times (7/50)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (1000 \times 7) / (1 \times 50)$$

On simplifying we get,

$$= (20 \times 7) / (1 \times 1)$$

$$= 140$$

v. **(3/20) of 1020**

Solution:-

We have:

$$= (3/20) \text{ of } (1020/1)$$

This can be written as,

$$= (1020/1) \times (3/20)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (1020 \times 3) / (1 \times 20)$$

On simplifying we get,

$$= (51 \times 3) / (1 \times 1)$$

$$= 153$$

vi. **(5/11) of ₹ 220**

Solution:-

We have:

$$= (5/11) \text{ of } (220/1)$$

This can be written as,

$$= (220/1) \times (5/11)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (220 \times 5) / (1 \times 11)$$

On simplifying we get,

$$= (20 \times 5) / (1 \times 1)$$

$$= ₹ 100$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

Then,
$$= (45 \times 5) / (1 \times 9)$$
On simplifying we get,
$$= (5 \times 5) / (1 \times 1)$$
$$= 25$$

iv. (7/50) of 1000**Solution:-**

We have:

$$= (7/50) \text{ of } (1000/1)$$

This can be written as,

$$= (1000/1) \times (7/50)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (1000 \times 7) / (1 \times 50)$$

On simplifying we get,

$$= (20 \times 7) / (1 \times 1)$$

$$= 140$$

v. (3/20) of 1020**Solution:-**

We have:

$$= (3/20) \text{ of } (1020/1)$$

This can be written as,

$$= (1020/1) \times (3/20)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (1020 \times 3) / (1 \times 20)$$

On simplifying we get,

$$= (51 \times 3) / (1 \times 1)$$

$$= 153$$

vi. (5/11) of ₹ 220**Solution:-**

We have:

$$= (5/11) \text{ of } (220/1)$$

This can be written as,

$$= (220/1) \times (5/11)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (220 \times 5) / (1 \times 11)$$

On simplifying we get,

$$= (20 \times 5) / (1 \times 1)$$

$$= ₹ 100$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.vii. **(4/9) of 54 meters****Solution:-**

We have:

$$= (4/9) \text{ of } (54/1)$$

This can be written as,

$$= (54/1) \times (4/9)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (54 \times 4) / (1 \times 9)$$

On simplifying we get,

$$= (6 \times 4) / (1 \times 1)$$

$$= 24 \text{ meters}$$

viii. **(6/7) of 35 liters****Solution:-**

We have:

$$= (6/7) \text{ of } (35/1)$$

This can be written as,

$$= (35/1) \times (6/7)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (35 \times 6) / (1 \times 7)$$

On simplifying we get,

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

$$= 30 \text{ liters}$$

ix. **(1/6) of an hour****Solution:-**

The above question can be written as,

$$= (1/6) \text{ of } 60 \text{ min}$$

We have:

$$= (1/6) \text{ of } (60/1)$$

This can be written as,

$$= (60/1) \times (1/6)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (60 \times 1) / (6 \times 1)$$

On simplifying we get,

$$= (10 \times 1) / (1 \times 1)$$

$$= 10 \text{ min}$$

x. **(5/6) of an year****Solution:-**

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.vii. **(4/9) of 54 meters****Solution:-**

We have:

$$= (4/9) \text{ of } (54/1)$$

This can be written as,

$$= (54/1) \times (4/9)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (54 \times 4) / (1 \times 9)$$

On simplifying we get,

$$= (6 \times 4) / (1 \times 1)$$

$$= 24 \text{ meters}$$

viii. **(6/7) of 35 liters****Solution:-**

We have:

$$= (6/7) \text{ of } (35/1)$$

This can be written as,

$$= (35/1) \times (6/7)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (35 \times 6) / (1 \times 7)$$

On simplifying we get,

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

$$= 30 \text{ liters}$$

ix. **(1/6) of an hour****Solution:-**

The above question can be written as,

$$= (1/6) \text{ of } 60 \text{ min}$$

We have:

$$= (1/6) \text{ of } (60/1)$$

This can be written as,

$$= (60/1) \times (1/6)$$

By the rule Multiplication of fraction,

Product of fraction = (product of numerator)/ (product of denominator)

Then,

$$= (60 \times 1) / (6 \times 1)$$

On simplifying we get,

$$= (10 \times 1) / (1 \times 1)$$

$$= 10 \text{ min}$$

x. **(5/6) of an year****Solution:-**

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

The above question can be written as,
= $(5/6)$ of 12 months

We have:
= $(5/6)$ of $(12/1)$

This can be written as,
= $(12/1) \times (5/6)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
= $(12 \times 5) / (1 \times 6)$

On simplifying we get,
= $(2 \times 5) / (1 \times 1)$
= 10 months

xi. $(7/20)$ of a kg**Solution:-**

The above question can be written as,
= $(7/20)$ of 1000 grams

We have:
= $(7/20)$ of $(1000/1)$

This can be written as,
= $(1000/1) \times (7/20)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
= $(1000 \times 7) / (1 \times 20)$

On simplifying we get,
= $(50 \times 7) / (1 \times 1)$
= 350 grams

xii. $(9/20)$ of a meter**Solution:-**

The above question can be written as,
= $(9/20)$ of 100 cm

We have:
= $(9/20)$ of $(100/1)$

This can be written as,
= $(100/1) \times (9/20)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
= $(100 \times 9) / (1 \times 20)$

On simplifying we get,
= $(5 \times 9) / (1 \times 1)$
= 45 cm

xiii. $(7/8)$ of a day

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

The above question can be written as,
= $(5/6)$ of 12 months

We have:
= $(5/6)$ of $(12/1)$

This can be written as,
= $(12/1) \times (5/6)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
= $(12 \times 5) / (1 \times 6)$

On simplifying we get,
= $(2 \times 5) / (1 \times 1)$
= 10 months

xi. $(7/20)$ of a kg**Solution:-**

The above question can be written as,
= $(7/20)$ of 1000 grams

We have:
= $(7/20)$ of $(1000/1)$

This can be written as,
= $(1000/1) \times (7/20)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
= $(1000 \times 7) / (1 \times 20)$

On simplifying we get,
= $(50 \times 7) / (1 \times 1)$
= 350 grams

xii. $(9/20)$ of a meter**Solution:-**

The above question can be written as,
= $(9/20)$ of 100 cm

We have:
= $(9/20)$ of $(100/1)$

This can be written as,
= $(100/1) \times (9/20)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
= $(100 \times 9) / (1 \times 20)$

On simplifying we get,
= $(5 \times 9) / (1 \times 1)$
= 45 cm

xiii. $(7/8)$ of a day

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.**Solution:-**

The above question can be written as,
 $= (7/8)$ of 24 hours

We have:
 $= (7/8)$ of $(24/1)$

This can be written as,
 $= (24/1) \times (7/8)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
 $= (24 \times 7)/ (1 \times 8)$

On simplifying we get,
 $= (3 \times 7)/ (1 \times 1)$
 $= 21$ hours

xiv. (3/7) of a week**Solution:-**

The above question can be written as,
 $= (3/7)$ of 7 days

We have:
 $= (3/7)$ of $(7/1)$

This can be written as,
 $= (7/1) \times (3/7)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
 $= (7 \times 3)/ (1 \times 7)$

On simplifying we get,
 $= (1 \times 3)/ (1 \times 1)$
 $= 3$ days

xv. (7/50) of a liter**Solution:-**

The above question can be written as,
 $= (7/50)$ of 1000 ml

We have:
 $= (7/50)$ of $(1000/1)$

This can be written as,
 $= (1000/1) \times (7/50)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
 $= (1000 \times 7)/ (1 \times 50)$

On simplifying we get,
 $= (20 \times 7)/ (1 \times 1)$
 $= 140$ ml

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.**Solution:-**

The above question can be written as,
 $= (7/8)$ of 24 hours

We have:
 $= (7/8)$ of $(24/1)$

This can be written as,
 $= (24/1) \times (7/8)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
 $= (24 \times 7)/ (1 \times 8)$

On simplifying we get,
 $= (3 \times 7)/ (1 \times 1)$
 $= 21$ hours

xiv. (3/7) of a week**Solution:-**

The above question can be written as,
 $= (3/7)$ of 7 days

We have:
 $= (3/7)$ of $(7/1)$

This can be written as,
 $= (7/1) \times (3/7)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
 $= (7 \times 3)/ (1 \times 7)$

On simplifying we get,
 $= (1 \times 3)/ (1 \times 1)$
 $= 3$ days

xv. (7/50) of a liter**Solution:-**

The above question can be written as,
 $= (7/50)$ of 1000 ml

We have:
 $= (7/50)$ of $(1000/1)$

This can be written as,
 $= (1000/1) \times (7/50)$

By the rule Multiplication of fraction,
Product of fraction = (product of numerator)/ (product of denominator)

Then,
 $= (1000 \times 7)/ (1 \times 50)$

On simplifying we get,
 $= (20 \times 7)/ (1 \times 1)$
 $= 140$ ml

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

4. Apples are sold at ₹ $[48(4/5)]$ per kg. What is the cost of $[3(3/4)]$ kg of apples?

Solution:-

From the question,

The cost of 1 kg of apples = $[48(4/5)] = (244/5)$

Therefore, the cost of $[3(3/4)]$ kg of apples = $(15/4)$

Then,

$$= (244/5) \times (15/4)$$

$$= (244 \times 15) / (5 \times 4)$$

On simplifying we get,

$$= (61 \times 3) / (1 \times 1)$$

$$= ₹ 183$$

Hence, the cost of $[3(3/4)]$ kg is ₹ 183

5. Cloth is being sold at ₹ $[42(1/2)]$ per meter. What is the cost of $[5(3/5)]$ meters of this cloth?

Solution:-

From the question,

The cost of 1 meter of cloth = ₹ $[42(1/2)] = (85/2)$

Therefore, the cost of $[5(3/5)]$ meters of cloth = $(28/5)$

Then,

$$= (85/2) \times (28/5)$$

$$= (85 \times 28) / (2 \times 5)$$

On simplifying we get,

$$= (17 \times 14) / (1 \times 1)$$

$$= ₹ 238$$

Hence, the cost of $[5(3/5)]$ meters of cloth is ₹ 238.

6. A car covers a certain distance at a uniform speed of $[66(2/3)]$ km per hour. How much distance will it cover in 9 hours?

Solution:-

From the question,

The total distance covered by a car in 1 hour = $[66(2/3)]$ km = $(200/3)$

Therefore, the distance covered by a car in 9 hour = $(200/3) \times 9$

Then,

$$= (200/3) \times (9/1)$$

$$= (200 \times 9) / (3 \times 1)$$

On simplifying we get,

$$= (200 \times 3) / (1 \times 1)$$

$$= 600 \text{ km}$$

Hence, the distance covered by a car in 9 hour is 600 km.

7. One tin holds $[12(3/4)]$ liters of oil. How many liters of oil can 26 such tins hold?

Solution:-

From the question,

The total amount of oil in 1 tin = $[12(3/4)]$ liters = $(51/4)$

Therefore, the amount of oil in 26 such tins = $(51/4) \times 26$

Then,

$$= (51/4) \times (26/1)$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

4. Apples are sold at ₹ $[48\frac{4}{5}]$ per kg. What is the cost of $[3\frac{3}{4}]$ kg of apples?

Solution:-

From the question,

The cost of 1 kg of apples = $[48\frac{4}{5}] = \frac{244}{5}$

Therefore, the cost of $[3\frac{3}{4}]$ kg of apples = $\frac{15}{4}$

Then,

$$= \frac{244}{5} \times \frac{15}{4}$$

$$= \frac{244 \times 15}{5 \times 4}$$

On simplifying we get,

$$= \frac{61 \times 3}{1 \times 1}$$

$$= ₹ 183$$

Hence, the cost of $[3\frac{3}{4}]$ kg is ₹ 183

5. Cloth is being sold at ₹ $[42\frac{1}{2}]$ per meter. What is the cost of $[5\frac{3}{5}]$ meters of this cloth?

Solution:-

From the question,

The cost of 1 meter of cloth = ₹ $[42\frac{1}{2}] = \frac{85}{2}$

Therefore, the cost of $[5\frac{3}{5}]$ meters of cloth = $\frac{28}{5}$

Then,

$$= \frac{85}{2} \times \frac{28}{5}$$

$$= \frac{85 \times 28}{2 \times 5}$$

On simplifying we get,

$$= \frac{17 \times 14}{1 \times 1}$$

$$= ₹ 238$$

Hence, the cost of $[5\frac{3}{5}]$ meters of cloth is ₹ 238.

6. A car covers a certain distance at a uniform speed of $[66\frac{2}{3}]$ km per hour. How much distance will it cover in 9 hours?

Solution:-

From the question,

The total distance covered by a car in 1 hour = $[66\frac{2}{3}]$ km = $\frac{200}{3}$

Therefore, the distance covered by a car in 9 hour = $\frac{200}{3} \times 9$

Then,

$$= \frac{200}{3} \times \frac{9}{1}$$

$$= \frac{200 \times 9}{3 \times 1}$$

On simplifying we get,

$$= \frac{200 \times 3}{1 \times 1}$$

$$= 600 \text{ km}$$

Hence, the distance covered by a car in 9 hour is 600 km.

7. One tin holds $[12\frac{3}{4}]$ liters of oil. How many liters of oil can 26 such tins hold?

Solution:-

From the question,

The total amount of oil in 1 tin = $[12\frac{3}{4}]$ liters = $\frac{51}{4}$

Therefore, the amount of oil in 26 such tins = $\frac{51}{4} \times 26$

Then,

$$= \frac{51}{4} \times \frac{26}{1}$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$= (51 \times 26) / (4 \times 1)$$

On simplifying we get,

$$= (51 \times 13) / (2 \times 1)$$

$$= (663/2)$$

$$= [331(1/2)] \text{ liters}$$

Hence, the amount of oil in 26 such tins is [331(1/2)] liters.

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RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$= (51 \times 26) / (4 \times 1)$$

On simplifying we get,

$$= (51 \times 13) / (2 \times 1)$$

$$= (663/2)$$

$$= [331(1/2)] \text{ liters}$$

Hence, the amount of oil in 26 such tins is [331(1/2)] liters.

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EXERCISE 2C

PAGE: 30

1. Write down the reciprocal of:

i. $(5/8)$

Solution:-Reciprocal of $(5/8)$ is $(8/5)$

$$[\because (5/8) \times (8/5) = 1]$$

ii. 7

Solution:-Reciprocal of 7 is $(1/7)$

$$[\because (7/1) \times (1/7) = 1]$$

iii. $(1/12)$

Solution:-Reciprocal of $(1/12)$ is $(12/1)$
 $= 12$

$$[\because (1/12) \times (12/1) = 1]$$

iv. $[12(3/5)]$

Solution:-Convert mixed fraction into improper fraction,
 $= (63/5)$ Reciprocal of $(63/5)$ is $(5/63)$

$$[\because ((63/5) \times (5/63)) = 1]$$

2. Simplify:

i. $(4/7) \div (9/14)$

Solution:-

We have,

$$= (4/7) \div (9/14)$$

$$= (4/7) \times (14/9)$$

(Because reciprocal of $(9/14)$ is $(14/9)$)

$$= (4 \times 14) / (7 \times 9)$$

$$= (4 \times 2) / (1 \times 9)$$

$$= (8/9)$$

ii. $(7/10) \div (3/5)$

Solution:-

We have,

$$= (7/10) \div (3/5)$$

$$= (7/10) \times (5/3)$$

(Because reciprocal of $(3/5)$ is $(5/3)$)

$$= (7 \times 5) / (10 \times 3)$$

$$= (7 \times 1) / (2 \times 3)$$

$$= (7/6)$$

$$= [1(1/6)]$$

iii. $(8/9) \div (16)$

Solution:-

We have,

EXERCISE 2C

PAGE: 30

1. Write down the reciprocal of:

i. $(5/8)$

Solution:-Reciprocal of $(5/8)$ is $(8/5)$

$$[\because ((5/8) \times (8/5)) = 1]$$

ii. 7

Solution:-Reciprocal of 7 is $(1/7)$

$$[\because ((7/1) \times (1/7)) = 1]$$

iii. $(1/12)$

Solution:-Reciprocal of $(1/12)$ is $(12/1)$
 $= 12$

$$[\because ((1/12) \times (12/1)) = 1]$$

iv. $[12(3/5)]$

Solution:-Convert mixed fraction into improper fraction,
 $= (63/5)$ Reciprocal of $(63/5)$ is $(5/63)$

$$[\because ((63/5) \times (5/63)) = 1]$$

2. Simplify:

i. $(4/7) \div (9/14)$

Solution:-

We have,

$$= (4/7) \div (9/14)$$

$$= (4/7) \times (14/9)$$

(Because reciprocal of $(9/14)$ is $(14/9)$)

$$= (4 \times 14) / (7 \times 9)$$

$$= (4 \times 2) / (1 \times 9)$$

$$= (8/9)$$

ii. $(7/10) \div (3/5)$

Solution:-

We have,

$$= (7/10) \div (3/5)$$

$$= (7/10) \times (5/3)$$

(Because reciprocal of $(3/5)$ is $(5/3)$)

$$= (7 \times 5) / (10 \times 3)$$

$$= (7 \times 1) / (2 \times 3)$$

$$= (7/6)$$

$$= [1(1/6)]$$

iii. $(8/9) \div (16)$

Solution:-

We have,

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$= (8/9) \div (16/1)$$

$$= (8/9) \times (1/16)$$

(Because reciprocal of $(16/1)$ is $(1/16)$)

$$= (8 \times 1) / (9 \times 16)$$

$$= (1 \times 1) / (9 \times 2)$$

$$= (1/18)$$

iv. **$(9) \div (1/3)$**

Solution:-

We have,

$$= (9/1) \div (1/3)$$

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

(Because reciprocal of $(1/3)$ is $(3/1)$)

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

$$= 27$$

v. **$(24) \div (6/7)$**

Solution:-

We have,

$$= (24/1) \div (6/7)$$

$$= (24/1) \times (7/6)$$

(Because reciprocal of $(6/7)$ is $(7/6)$)

$$= (24 \times 7) / (1 \times 6)$$

$$= (4 \times 7) / (1 \times 1)$$

$$= 28$$

vi. **$[3(3/5)] \div (4/5)$**

Solution:-

Convert mixed fraction into improper fraction,

$$= [3(3/5)] = (18/5)$$

We have,

$$= (18/5) \div (4/5)$$

$$= (18/5) \times (5/4)$$

(Because reciprocal of $(4/5)$ is $(5/4)$)

$$= (18 \times 5) / (5 \times 4)$$

$$= (9 \times 1) / (1 \times 2)$$

$$= (9/2)$$

$$= [4(1/2)]$$

vii. **$[3(3/7)] \div (8/21)$**

Solution:-

Convert mixed fraction into improper fraction,

$$= [3(3/7)] = (24/7)$$

We have,

$$= (24/7) \div (8/21)$$

$$= (24/7) \times (21/8)$$

(Because reciprocal of $(8/21)$ is $(21/8)$)

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$= (8/9) \div (16/1)$$

$$= (8/9) \times (1/16)$$

(Because reciprocal of $(16/1)$ is $(1/16)$)

$$= (8 \times 1) / (9 \times 16)$$

$$= (1 \times 1) / (9 \times 2)$$

$$= (1/18)$$

iv. **$(9) \div (1/3)$**

Solution:-

We have,

$$= (9/1) \div (1/3)$$

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

(Because reciprocal of $(1/3)$ is $(3/1)$)

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

$$= 27$$

v. **$(24) \div (6/7)$**

Solution:-

We have,

$$= (24/1) \div (6/7)$$

$$= (24/1) \times (7/6)$$

(Because reciprocal of $(6/7)$ is $(7/6)$)

$$= (24 \times 7) / (1 \times 6)$$

$$= (4 \times 7) / (1 \times 1)$$

$$= 28$$

vi. **$[3(3/5)] \div (4/5)$**

Solution:-

Convert mixed fraction into improper fraction,

$$= [3(3/5)] = (18/5)$$

We have,

$$= (18/5) \div (4/5)$$

$$= (18/5) \times (5/4)$$

(Because reciprocal of $(4/5)$ is $(5/4)$)

$$= (18 \times 5) / (5 \times 4)$$

$$= (9 \times 1) / (1 \times 2)$$

$$= (9/2)$$

$$= [4(1/2)]$$

vii. **$[3(3/7)] \div (8/21)$**

Solution:-

Convert mixed fraction into improper fraction,

$$= [3(3/7)] = (24/7)$$

We have,

$$= (24/7) \div (8/21)$$

$$= (24/7) \times (21/8)$$

(Because reciprocal of $(8/21)$ is $(21/8)$)

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$\begin{aligned}
 &= (24 \times 21) / (7 \times 8) \\
 &= (3 \times 3) / (1 \times 1) \\
 &= 9
 \end{aligned}$$

viii. **$[5(4/7)] \div [1(3/10)]$** **Solution:-**

Convert mixed fraction into improper fraction,

$$\begin{aligned}
 &= [5(4/7)] = (39/7) \\
 &= [1(3/10)] = (13/10)
 \end{aligned}$$

We have,

$$\begin{aligned}
 &= (39/7) \div (13/10) \\
 &= (39/7) \times (10/13)
 \end{aligned}$$

(Because reciprocal of $(13/10)$ is $(10/13)$)

$$\begin{aligned}
 &= (39 \times 10) / (7 \times 13) \\
 &= (390) / (91) \\
 &= (30 / 7) \\
 &= [4(2/7)]
 \end{aligned}$$

ix. **$[15(3/7)] \div [1(23/49)]$** **Solution:-**

Convert mixed fraction into improper fraction,

$$\begin{aligned}
 &= [15(3/7)] = (108/7) \\
 &= [1(23/49)] = (72/49)
 \end{aligned}$$

We have,

$$\begin{aligned}
 &= (108/7) \div (72/49) \\
 &= (108/7) \times (49/72)
 \end{aligned}$$

(Because reciprocal of $(72/49)$ is $(49/72)$)

$$\begin{aligned}
 &= (108 \times 49) / (7 \times 72) \\
 &= (9 \times 7) / (1 \times 6) \\
 &= (3 \times 7) / (1 \times 2) \\
 &= (21/2) \\
 &= [10(1/2)]
 \end{aligned}$$

3. Divide:i. **$(11/24)$ by $(7/8)$** **Solution:-**

The above question can be written as,

$$= (11/24) \div (7/8)$$

We have,

$$= (11/24) \times (8/7)$$

(Because reciprocal of $(7/8)$ is $(8/7)$)

$$\begin{aligned}
 &= (11 \times 8) / (24 \times 7) \\
 &= (11 \times 1) / (3 \times 9) \\
 &= (11/21)
 \end{aligned}$$

ii. **$[6(7/8)]$ by $(11/16)$** **Solution:-**

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$\begin{aligned}
 &= (24 \times 21) / (7 \times 8) \\
 &= (3 \times 3) / (1 \times 1) \\
 &= 9
 \end{aligned}$$

viii. **$[5(4/7)] \div [1(3/10)]$** **Solution:-**

Convert mixed fraction into improper fraction,

$$\begin{aligned}
 &= [5(4/7)] = (39/7) \\
 &= [1(3/10)] = (13/10)
 \end{aligned}$$

We have,

$$\begin{aligned}
 &= (39/7) \div (13/10) \\
 &= (39/7) \times (10/13)
 \end{aligned}$$

(Because reciprocal of $(13/10)$ is $(10/13)$)

$$\begin{aligned}
 &= (39 \times 10) / (7 \times 13) \\
 &= (390) / (91) \\
 &= (30 / 7) \\
 &= [4(2/7)]
 \end{aligned}$$

ix. **$[15(3/7)] \div [1(23/49)]$** **Solution:-**

Convert mixed fraction into improper fraction,

$$\begin{aligned}
 &= [15(3/7)] = (108/7) \\
 &= [1(23/49)] = (72/49)
 \end{aligned}$$

We have,

$$\begin{aligned}
 &= (108/7) \div (72/49) \\
 &= (108/7) \times (49/72)
 \end{aligned}$$

(Because reciprocal of $(72/49)$ is $(49/72)$)

$$\begin{aligned}
 &= (108 \times 49) / (7 \times 72) \\
 &= (9 \times 7) / (1 \times 6) \\
 &= (3 \times 7) / (1 \times 2) \\
 &= (21/2) \\
 &= [10(1/2)]
 \end{aligned}$$

3. Divide:i. **$(11/24)$ by $(7/8)$** **Solution:-**

The above question can be written as,

$$= (11/24) \div (7/8)$$

We have,

$$= (11/24) \times (8/7)$$

(Because reciprocal of $(7/8)$ is $(8/7)$)

$$\begin{aligned}
 &= (11 \times 8) / (24 \times 7) \\
 &= (11 \times 1) / (3 \times 9) \\
 &= (11/21)
 \end{aligned}$$

ii. **$[6(7/8)]$ by $(11/16)$** **Solution:-**

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

The above question can be written as,

$$= [6(7/8)] \div (11/16)$$

Convert mixed fraction into improper fraction,

$$= [6(7/8)] = (55/8)$$

We have,

$$= (55/8) \times (16/11)$$

(Because reciprocal of (11/16) is (16/11))

$$= (55 \times 16) / (8 \times 11)$$

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

$$= 10$$

iii. [5(5/9)] by [3(1/3)]

Solution:-

The above question can be written as,

$$= [5(5/9)] \div [3(1/3)]$$

Convert mixed fraction into improper fraction,

$$= [5(5/9)] = (50/9)$$

$$= [3(1/3)] = (10/3)$$

We have,

$$= (50/9) \times (3/10)$$

(Because reciprocal of (10/3) is (3/10))

$$= (50 \times 3) / (9 \times 10)$$

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

$$= (5/3)$$

$$= [1(2/3)]$$

iv. 32 by [1(3/5)]

Solution:-

The above question can be written as,

$$= 32 \div [1(3/5)]$$

Convert mixed fraction into improper fraction,

$$= [1(3/5)] = (8/5)$$

We have,

$$= (32/1) \times (5/8)$$

(Because reciprocal of (8/5) is (5/8))

$$= (32 \times 5) / (1 \times 8)$$

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

$$= 20$$

v. 45 by [1(4/5)]

Solution:-

The above question can be written as,

$$= 45 \div [1(4/5)]$$

Convert mixed fraction into improper fraction,

$$= [1(4/5)] = (9/5)$$

We have,

$$= (45/1) \times (5/9)$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

The above question can be written as,

$$= [6(7/8)] \div (11/16)$$

Convert mixed fraction into improper fraction,

$$= [6(7/8)] = (55/8)$$

We have,

$$= (55/8) \times (16/11)$$

(Because reciprocal of (11/16) is (16/11))

$$= (55 \times 16) / (8 \times 11)$$

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

$$= 10$$

iii. [5(5/9)] by [3(1/3)]

Solution:-

The above question can be written as,

$$= [5(5/9)] \div [3(1/3)]$$

Convert mixed fraction into improper fraction,

$$= [5(5/9)] = (50/9)$$

$$= [3(1/3)] = (10/3)$$

We have,

$$= (50/9) \times (3/10)$$

(Because reciprocal of (10/3) is (3/10))

$$= (50 \times 3) / (9 \times 10)$$

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

$$= (5/3)$$

$$= [1(2/3)]$$

iv. 32 by [1(3/5)]

Solution:-

The above question can be written as,

$$= 32 \div [1(3/5)]$$

Convert mixed fraction into improper fraction,

$$= [1(3/5)] = (8/5)$$

We have,

$$= (32/1) \times (5/8)$$

(Because reciprocal of (8/5) is (5/8))

$$= (32 \times 5) / (1 \times 8)$$

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

$$= 20$$

v. 45 by [1(4/5)]

Solution:-

The above question can be written as,

$$= 45 \div [1(4/5)]$$

Convert mixed fraction into improper fraction,

$$= [1(4/5)] = (9/5)$$

We have,

$$= (45/1) \times (5/9)$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$\begin{aligned}
 & \text{(Because reciprocal of } (9/5) \text{ is } (5/9)) \\
 & = (45 \times 5) / (1 \times 9) \\
 & = (5 \times 5) / (1 \times 1) \\
 & = 25
 \end{aligned}$$

vi. **63 by $[2(1/4)]$** **Solution:-**

The above question can be written as,

$$= 63 \div [2(1/4)]$$

Convert mixed fraction into improper fraction,

$$= [2(1/4)] = (9/4)$$

We have,

$$= (63/1) \times (4/9)$$

(Because reciprocal of $(9/4)$ is $(4/9)$)

$$= (63 \times 4) / (1 \times 9)$$

$$= (7 \times 4) / (1 \times 1)$$

$$= 28$$

4. **A rope of length $[13(1/2)]$ m has been divided into 9 pieces of the same length. What is the length of each piece?****Solution:-**

From the question,

$$\text{Rope length} = [13(1/2)] \text{ m} = (27/2)$$

Number of equal pieces divided into = 9

Then we have,

$$= (27/2) \div (9/1)$$

$$= (27/2) \times (1/9)$$

(Because reciprocal of $(9/1)$ is $(1/9)$)

$$= (27 \times 1) / (2 \times 9)$$

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

$$= (3 / 2)$$

$$= [1(1/2)] \text{ m}$$

Hence, the length of 9 pieces of rope is $[1(1/2)]$ m5. **18 boxes of nails weigh equally and their total weight is $[49(1/2)]$ kg. How much does each box weigh?****Solution:-**

From the question,

$$\text{Total weight of boxes} = [49(1/2)] \text{ kg} = (99/2)$$

Number of boxes = 18

Then we have,

$$= (99/2) \div (18/1)$$

$$= (99/2) \times (1/18)$$

(Because reciprocal of $(18/1)$ is $(1/18)$)

$$= (99 \times 1) / (2 \times 18)$$

$$= (11 \times 1) / (2 \times 2)$$

$$= (11 / 4)$$

$$= [2(3/4)] \text{ kg}$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

$$\begin{aligned} & \text{(Because reciprocal of } (9/5) \text{ is } (5/9)) \\ & = (45 \times 5) / (1 \times 9) \\ & = (5 \times 5) / (1 \times 1) \\ & = 25 \end{aligned}$$

vi. 63 by $[2(1/4)]$ **Solution:-**

The above question can be written as,

$$= 63 \div [2(1/4)]$$

Convert mixed fraction into improper fraction,

$$= [2(1/4)] = (9/4)$$

We have,

$$= (63/1) \times (4/9)$$

(Because reciprocal of $(9/4)$ is $(4/9)$)

$$= (63 \times 4) / (1 \times 9)$$

$$= (7 \times 4) / (1 \times 1)$$

$$= 28$$

- 4. A rope of length $[13(1/2)]$ m has been divided into 9 pieces of the same length. What is the length of each piece?**

Solution:-

From the question,

$$\text{Rope length} = [13(1/2)] \text{ m} = (27/2)$$

Number of equal pieces divided into = 9

Then we have,

$$= (27/2) \div (9/1)$$

$$= (27/2) \times (1/9)$$

(Because reciprocal of $(9/1)$ is $(1/9)$)

$$= (27 \times 1) / (2 \times 9)$$

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

$$= (3 / 2)$$

$$= [1(1/2)] \text{ m}$$

Hence, the length of 9 pieces of rope is $[1(1/2)]$ m

- 5. 18 boxes of nails weigh equally and their total weight is $[49(1/2)]$ kg. How much does each box weigh?**

Solution:-

From the question,

$$\text{Total weight of boxes} = [49(1/2)] \text{ kg} = (99/2)$$

Number of boxes = 18

Then we have,

$$= (99/2) \div (18/1)$$

$$= (99/2) \times (1/18)$$

(Because reciprocal of $(18/1)$ is $(1/18)$)

$$= (99 \times 1) / (2 \times 18)$$

$$= (11 \times 1) / (2 \times 2)$$

$$= (11 / 4)$$

$$= [2(3/4)] \text{ kg}$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
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Hence, the weight of each box is $[2(3/4)]$ kg

6. **By selling oranges at the rate of ₹ $[6(3/4)]$ per orange, a man gets ₹ 378. How many oranges does he sell?**

Solution:-

From the question,

Cost for 1 orange = ₹ $[6(3/4)] = (27/4)$

Man gets = ₹ 378

Then we have,

$$= (378/1) \div (27/4)$$

$$= (378/1) \times (4/27)$$

(Because reciprocal of $(27/4)$ is $(4/27)$)

$$= (378 \times 4) / (1 \times 27)$$

$$= (42 \times 4) / (1 \times 3)$$

$$= (14 \times 4) / (1 \times 1)$$

$$= 56$$

Hence, the man sold 56 orange.

7. **Mangos are sold at ₹ $[43(1/2)]$ per kg. What is the weight of mangoes available for ₹ $[326(1/4)]$?**

Solution:-

From the question,

Mangos are sold at = ₹ $[43(1/2)] = (87/2)$

The weight of mangos available for = ₹ $[326(1/4)] = (1305/4)$

Then we have,

$$= (1305/4) \div (87/2)$$

$$= (1305/4) \times (2/87)$$

(Because reciprocal of $(87/2)$ is $(2/87)$)

$$= (1305 \times 2) / (4 \times 87)$$

$$= (435 \times 1) / (2 \times 29)$$

$$= [7(1/2)] \text{ kg}$$

Hence, the weight of mangos available for $(1305/4)$ is $[7(1/2)]$ kg

8. **Vikas can cover a distance of $[20(2/3)]$ km in $[7(3/4)]$ hours on foot. How many km per hour does he walk?**

Solution:-

From the question,

Distance covered by vikas in $[7(3/4)]$ hours on foot = $[20(2/3)]$ km = $(62/3)$

Distance covered by vikas in 1 hour = $(62/3) \div (31/4)$

Then we have,

$$= (62/3) \times (4/31)$$

(Because reciprocal of $(31/4)$ is $(4/31)$)

$$= (62 \times 4) / (3 \times 31)$$

$$= (2 \times 4) / (3 \times 1)$$

$$= (8) / (3)$$

$$= [2(2/3)] \text{ km}$$

Hence, Distance covered by vikas in 1 hour is $[2(2/3)]$ km

RS Aggarwal Solutions for Class 7 Maths chapter 2
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Hence, the weight of each box is $[2(3/4)]$ kg

6. **By selling oranges at the rate of ₹ $[6(3/4)]$ per orange, a man gets ₹ 378. How many oranges does he sell?**

Solution:-

From the question,

$$\text{Cost for 1 orange} = ₹ [6(3/4)] = (27/4)$$

$$\text{Man gets} = ₹ 378$$

Then we have,

$$= (378/1) \div (27/4)$$

$$= (378/1) \times (4/27)$$

(Because reciprocal of $(27/4)$ is $(4/27)$)

$$= (378 \times 4) / (1 \times 27)$$

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From the question,

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Then we have,

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$$= (1305/4) \times (2/87)$$

(Because reciprocal of $(87/2)$ is $(2/87)$)

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Hence, the weight of mangoes available for $(1305/4)$ is $[7(1/2)]$ kg

8. **Vikas can cover a distance of $[20(2/3)]$ km in $[7(3/4)]$ hours on foot. How many km per hour does he walk?**

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(Because reciprocal of $(31/4)$ is $(4/31)$)

$$= (62 \times 4) / (3 \times 31)$$

$$= (2 \times 4) / (3 \times 1)$$

$$= (8) / (3)$$

$$= [2(2/3)] \text{ km}$$

Hence, Distance covered by vikas in 1 hour is $[2(2/3)]$ km

EXERCISE 2D

PAGE: 31

Mark against the correct answer in each of the following:

1. Which of the following is a vulgar fraction?

- a) $(3/10)$ b) $(13/10)$ c) $(10/3)$ d) none of these

Solution:-

 $(10/3)$. Because, its denominator is a whole number, other than 10, 100, 10000 etc.

2. Which of the following is an improper fraction?

- a) $(7/10)$ b) $(7/9)$ c) $(9/7)$ d) none of these

Solution:-

 $(9/7)$. Because, its numerator is more than its denominator.

3. Which of the following is a reducible fraction?

- a) $(105/112)$ b) $(104/121)$ c) $(77/72)$ d) $(46/63)$

Solution:-

 $(105/112)$. Because the fraction can be reduced by dividing both numerator and denominator by a common factor.4. $(2/3)$, $(4/6)$, $(6/9)$, $(8/12)$ are

- a) Like fractions b) irreducible fraction c) equivalent fraction
d) None of these

Solution: -

Like fractions. Because the numerator is less than the denominator.

5. Which of the following statement is true?

- a) $(9/16) = (13/24)$ b) $(9/16) < (13/4)$ c) $(9/16) > (13/24)$ d) none of these

Solution:-

 $(9/16) > (13/24)$

Because,

By cross multiplication

 $(9 \times 24) = 216$ and $(13 \times 16) = 208$

There for,

 $216 > 208$

Hence,

 $(9/16) > (13/24)$ 6. Reciprocal of $[1(3/4)]$

- a) $[1(4/3)]$ b) $[4(1/3)]$ c) $[3(1/4)]$ d) none of these

Solution:-

None of these.

Because, Reciprocal of $[1(3/4)] = (7/4) = (4/7)$

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Solution:-

None of these.

Because, Reciprocal of $[1(3/4)] = (7/4) = (4/7)$

RS Aggarwal Solutions for Class 7 Maths chapter 2
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7. $[(3/10)+(8/15)] = ?$

a) $(11/10)$

b) $(11/15)$

c) $(5/6)$

d) none of these

Solution:-

$(5/6)$

Because,

$$= (3/10) + (8/15)$$

LCM of 10 and 15 = 30

$$= (3/10) \times (3/3) = (9/30)$$

$$= (8/15) \times (2/2) = (16/30)$$

$$= (9/30) + (16/30)$$

$$= (9 + 16)/30$$

$$= (25/30)$$

$$= (5/6)$$

8. $[3(1/4)] - [2(1/3)] = ?$

a) $[1(1/12)]$

b) $(1/12)$

c) $[1(1/11)]$

d) $(11/12)$

Solution:-

$(11/12)$

Because,

$$= (13/4) - (5/3)$$

LCM of 4 and 3 = 12

$$= (13/4) \times (3/3) = (39/12)$$

$$= (6/3) \times (4/4) = (28/12)$$

$$= (39/12) - (28/12)$$

$$= (39 - 28)/12$$

$$= (11/12)$$

RS Aggarwal Solutions for Class 7 Maths chapter 2
Fractions.

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c) $(5/6)$

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c) $[1(1/11)]$

d) $(11/12)$

Solution:-

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Because,

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LCM of 4 and 3 = 12

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