= (4625/1000) ... [÷ by 125]
= (37/8)
= [4(5/8)]

3. Convert each of the following into a decimals:

i. (47/10)

Solution:-

Dived the numerator by the denominator till a nonzero remainder is obtained.
Put a decimal point in the dividend as well as in the quotient.
Put a zero on the decimal point in the dividend as well as on the right of the remainder.
Divide again just as we do in whole numbers.
Repeat the steps 3 and 4, till the remainder is zero.

```
10)47.0 (4.7
   40
    70
    70
     00
```

∴ (47/10) = 4.7

ii. (156/100)

Solution:-

Dived the numerator by the denominator till a nonzero remainder is obtained.
Put a decimal point in the dividend as well as in the quotient.
Put a zero on the decimal point in the dividend as well as on the right of the remainder.
Divide again just as we do in whole numbers.
Repeat the steps 3 and 4, till the remainder is zero.

```
          0 0 1. 5 6
1 0 0 | 1 5 6. 0 0
      - 0
        1 5
      -   0
        1 5 6
      - 1 0 0
          5 6 0
        - 5 0 0
            6 0 0
          - 6 0 0
                0
```

∴ (156/100) = 1.56

RS Aggarwal Solutions for Class 7 Maths chapter 3
Decimals

2. Convert each of the following as a mixed fraction:

i. 5.6

Solution:-

Now write the given decimal without the decimal point as the numerator of the fraction.
In the denominator, write 1 followed by as many zeros as there are decimal places in the given decimal.
Then we have,

= 5.6 = (56/10)

Now reduce the above fraction to the simplest form.

= (56/10) … [÷ by 2]
= (28/5)
= [5(3/5)]

ii. 12.25

Solution:-

Now write the given decimal without the decimal point as the numerator of the fraction.
In the denominator, write 1 followed by as many zeros as there are decimal places in the given decimal.
Then we have,

= 12.25 = (1225/100)

Now reduce the above fraction to the simplest form.

= (1225/100) … [÷ by 5]
= (49/4)
= [12(1/4)]

iii. 6.004

Solution:-

Now write the given decimal without the decimal point as the numerator of the fraction.
In the denominator, write 1 followed by as many zeros as there are decimal places in the given decimal.
Then we have,

= 6.004 = (6004/1000)

Now reduce the above fraction to the simplest form.

= (6004/1000) … [÷ by 2]
= (1501/250)
= [6(1/250)]

iv. 4.625

Solution:-

Now write the given decimal without the decimal point as the numerator of the fraction.
In the denominator, write 1 followed by as many zeros as there are decimal places in the given decimal.
Then we have,

= 4.625 = (4625/1000)

Now reduce the above fraction to the simplest form.

RS Aggarwal Solutions for Class 7 Maths chapter 3
Decimals

EXERCISE 3A PAGE: 39

1. Convert each of the following into a fraction in its simplest from:

i. .8

Solution:-

Now write the given decimal without the decimal point as the numerator of the fraction.
In the denominator, write 1 followed by as many zeros as there are decimal places in the given decimal.
Then we have,

= .8 = (8/10)

Now reduce the above fraction to the simplest form.

= (8/10) ... [÷ by 2]
= (4/5)

ii. .75

Solution:-

Now write the given decimal without the decimal point as the numerator of the fraction.
In the denominator, write 1 followed by as many zeros as there are decimal places in the given decimal.
Then we have,

= .75 = (75/100)

Now reduce the above fraction to the simplest form.

= (75/100) ... [÷ by 5]
= (3/4)

iii. .06

Solution:-

Now write the given decimal without the decimal point as the numerator of the fraction.
In the denominator, write 1 followed by as many zeros as there are decimal places in the given decimal.
Then we have,

= .06 = (6/100)

Now reduce the above fraction to the simplest form.

= (6/100) ... [÷ by 2]
= (3/50)

iv. .285

Solution:-

Now write the given decimal without the decimal point as the numerator of the fraction.
In the denominator, write 1 followed by as many zeros as there are decimal places in the given decimal.
Then we have,

= .285 = (285/1000)

Now reduce the above fraction to the simplest form.

= (285/1000) ... [÷ by 5]
= (5/200)

iii. **(2516/100)**

Solution:-

Dived the numerator by the denominator till a nonzero remainder is obtained.
Put a decimal point in the dividend as well as in the quotient.
Put a zero on the decimal point in the dividend as well as on the right of the remainder.
Divide again just as we do in whole numbers.
Repeat the steps 3 and 4, till the remainder is zero.

```
           0 0 2 5. 1 6
    1 0 0 |2 5 1 6. 0 0
         - 0
           2 5
         -   0
           2 5 1
         - 2 0 0
             5 1 6
           - 5 0 0
               1 6 0
             - 1 0 0
                 6 0 0
               - 6 0 0
                     0
```

∴ (2516/100) = 25.16

iv. **(3524/1000)**

Solution:-

Dived the numerator by the denominator till a nonzero remainder is obtained.
Put a decimal point in the dividend as well as in the quotient.
Put a zero on the decimal point in the dividend as well as on the right of the remainder.
Divide again just as we do in whole numbers.
Repeat the steps 3 and 4, till the remainder is zero.

```
         0 0 0 3. 5 2 4
1 0 0 0 | 3 5 2 4. 0 0 0
      - 0
        3 5
      -   0
        3 5 2
      -     0
        3 5 2 4
      - 3 0 0 0
          5 2 4 0
        - 5 0 0 0
            2 4 0 0
          - 2 0 0 0
              4 0 0 0
            - 4 0 0 0
                    0
```

∴ (3524/1000) = 3.524

v. (25/8)

Solution:-

Dived the numerator by the denominator till a nonzero remainder is obtained.
Put a decimal point in the dividend as well as in the quotient.
Put a zero on the decimal point in the dividend as well as on the right of the remainder.
Divide again just as we do in whole numbers.
Repeat the steps 3 and 4, till the remainder is zero.

```
   0 3. 1 2 5
8 | 2 5. 0 0 0
- 0
  2 5
- 2 4
    1 0
  -   8
      2 0
    - 1 6
        4 0
      - 4 0
          0
```

∴ (25/8) = 3.125

vi. **[3(2/5)]**

Solution:-

Convert mixed fraction into improper fraction,

= [3(2/5)] = (17/5)

Dived the numerator by the denominator till a nonzero remainder is obtained.

Put a decimal point in the dividend as well as in the quotient.

Put a zero on the decimal point in the dividend as well as on the right of the remainder.

Divide again just as we do in whole numbers.

Repeat the steps 3 and 4, till the remainder is zero.

```
   0 3. 4
5 | 1 7. 0
 - 0
   1 7
 - 1 5
     2 0
   - 2 0
       0
```

∴ (17/5) = 3.4

vii. **[2(2/25)]**

Solution:-

Convert mixed fraction into improper fraction,

= [2(2/25)] = (52/25)

Dived the numerator by the denominator till a nonzero remainder is obtained.

Put a decimal point in the dividend as well as in the quotient.

Put a zero on the decimal point in the dividend as well as on the right of the remainder.

Divide again just as we do in whole numbers.

Repeat the steps 3 and 4, till the remainder is zero.

```
     0 2. 0 8
2 5 | 5 2. 0 0
   - 0
     5 2
   - 5 0
       2 0
     -   0
       2 0 0
     - 2 0 0
           0
```

∴ (52/25) = 2.08

viii. **(17/20)**
Solution:-
Dived the numerator by the denominator till a nonzero remainder is obtained.
Put a decimal point in the dividend as well as in the quotient.
Put a zero on the decimal point in the dividend as well as on the right of the remainder.
Divide again just as we do in whole numbers.
Repeat the steps 3 and 4, till the remainder is zero.

```
          0  0. 8  5
      ______________
 2 0 | 1  7. 0  0
   -  0
     ___
      1  7
   -     0
     ________
      1  7  0
   -  1  6  0
     __________
         1  0  0
      -  1  0  0
        ___________
                 0
```

∴ (17/20) = 0.85

4. Convert each of the following into like decimals:

i. **6.5, 16.03, 0.274, 119.4**
Solution:-
Decimals having the same number of decimal place are called like decimals.
By converting, we have,
6.500, 16.030, 0.274, 119.400

ii. **3.5, 0.67, 15.6, 4**
Solution:-
Decimals having the same number of decimal place are called like decimals.
By converting, we have
3.50, 0.67, 15.60, 4.00

5. Fill in each of the place holders with the correct symbol > or <.

i. **78.23 ……. 69.85**
Solution:-
By comparing whole numbers 78 > 69
∴ 78.23>69.85

ii. **3.406……3.46**

Solution:-
By comparing whole number, 3 = 3
By comparing the tenths place digit, 4 = 4
By comparing the hundredths place digit, 0 < 6
∴ 3.406 < 3.46

iii. 5.68……5.86
Solution:-
By comparing whole number, 5 = 5
By comparing the tenths place digit, 6 < 8
∴ 5.68 < 5.86

iv. 14.05……14.005
Solution:-
By comparing whole number, 14 = 14
By comparing the tenths place digit, 0 = 0
By comparing the hundredths place digit, 5 > 0
∴ 14.05 > 14.005

v. 1.85……1.80
Solution:-
By comparing whole number, 1 = 1
By comparing the tenths place digit, 8 = 8
By comparing the hundredths place digit, 5 > 0
∴ 1.85 > 1.80

vi. 0.98……1.07
Solution:-
By comparing whole number, 0 < 1
∴ 0.98 < 1.07

RS Aggarwal Solutions for Class 7 Maths chapter 3
Decimals

EXERCISE 3B

PAGE: 41

Add:

1. **16, 8.7, 0.94, 6.8 and 7.77**

Solution:-

First convert the given decimals into like decimals.

We get,

16.00, 8.70, 0.94, 6.80, 7.77

Write the addends on under the other in column form, keeping the decimal points of all the addends in the same column and the digits of the same place in the same column.

Writing these decimals in column from and adding, we get:

$$\begin{array}{r} 16.00 \\ 8.70 \\ 6.80 \\ 7.77 \\ \hline 40.21 \end{array}$$

Hence, the sum of the given decimals is 40.21

2. **18.6, 206.37, 8.008, 26.4 and 6.9**

Solution:-

First convert the given decimals into like decimals.

We get,

18.600, 206.370, 8.008, 26.400, 6.900

Write the addends on under the other in column form, keeping the decimal points of all the addends in the same column and the digits of the same place in the same column.

Writing these decimals in column from and adding, we get:

$$\begin{array}{r} 18.600 \\ 206.370 \\ 8.008 \\ 26.400 \\ 6.900 \\ \hline 266.278 \end{array}$$

Hence, the sum of the given decimals is 266.278

3. **63.5, 9.7, 0.8, 26.66 and 12.17**

Solution:-

First convert the given decimals into like decimals.

We get,

63.50, 9.70, 0.80, 26.66 and 12.17

Write the addends on under the other in column form, keeping the decimal points of all the addends in the same column and the digits of the same place in the same column.

Writing these decimals in column from and adding, we get:

$$\begin{array}{r} 63.50 \\ 9.70 \\ 0.80 \\ 26.66 \end{array}$$

12.17
112.83

Hence, the sum of the given decimals is 112.83

4. **17.4, 86,39, 9.435, 8.8 and 0.06**

Solution:-

First convert the given decimals into like decimals.

We get,

17.400, 86,390, 9.435, 8.800 and 0.060

Write the addends on under the other in column form, keeping the decimal points of all the addends in the same column and the digits of the same place in the same column.

Writing these decimals in column from and adding, we get:

17.400
86.390
9.435
8.800
0.060
122.085

Hence, the sum of the given decimals is 122.085

5. **26.9, 19.74, 231.769 and 0.048**

Solution:-

First convert the given decimals into like decimals.

We get,

26.900, 19.740, 231.769 and 0.048

Write the addends on under the other in column form, keeping the decimal points of all the addends in the same column and the digits of the same place in the same column.

Writing these decimals in column from and adding, we get:

26.900
19.740
234.769
0.048
278.457

Hence, the sum of the given decimals is 278.457

6. **23.8, 8.94, 0.078 and 214.6**

Solution:-

First convert the given decimals into like decimals.

We get,

23.800, 8.940, 0.078 and 214.600

Write the addends on under the other in column form, keeping the decimal points of all the addends in the same column and the digits of the same place in the same column.

Writing these decimals in column from and adding, we get:

23.800
8.940
0.078

214.600
247.418

Hence, the sum of the given decimals is 247.418

7. 6.606, 66.6, 666, 0.066, 0.66

Solution:-

First convert the given decimals into like decimals.

We get,

6.606, 66.600, 666.000, 0.066, 0.660

Write the addends on under the other in column form, keeping the decimal points of all the addends in the same column and the digits of the same place in the same column.

Writing these decimals in column from and adding, we get:

6.606
66.600
666.000
0.066
0.660
739.932

Hence, the sum of the given decimals is 739.932

8. 9.09, 0.909, 99.9, 9.99, 0.099

Solution:-

First convert the given decimals into like decimals.

We get,

9.090, 0.909, 99.900, 9.990, 0.099

Write the addends on under the other in column form, keeping the decimal points of all the addends in the same column and the digits of the same place in the same column.

Writing these decimals in column from and adding, we get:

9.090
0.909
99.900
9.990
0.099
119.988

Subtract:

9. 14.79 from 72.43

Solution:-

Writing them into column form with the larger one at the top and subtracting, we get:

72.79
-14.79
57.64

Hence (14.79 - 72.43) = 57.64

10. 36.74 from 52.6

Solution:-

Converting the decimals into like decimals, we get 36.74 and 52.60

Writing them into column form with the larger one at the top and subtracting, we get:

52.60
-36.74
15.86

Hence (36.74 - 52.6) = 15.86

11. 13.876 from 22

Solution:-

Converting the decimals into like decimals, we get 13.876 from 22.000

Writing them into column form with the larger one at the top and subtracting, we get:

22.000
-13.876
8.124

Hence (13.876-22) = 8.124

RS Aggarwal Solutions for Class 7 Maths chapter 3
Decimals

EXERCISE 3C PAGE: 43

1. **Find the product:**
   i. **73.92 × 10**
   Solution:-
   On multiplying a decimal by 10, the decimal point is shifted to the right by one place.
   We have,
   73.92 × 10 = 739.2

   ii. **7.54 × 10**
   Solution:-
   On multiplying a decimal by 10, the decimal point is shifted to the right by one place.
   We have,
   7.54 × 10 = 75.4

   iii. **84.003 × 10**
   Solution:-
   On multiplying a decimal by 10, the decimal point is shifted to the right by one place.
   We have,
   84.003 × 10 = 840.03

   iv. **0.83 × 10**
   Solution:-
   On multiplying a decimal by 10, the decimal point is shifted to the right by one place.
   We have,
   0.83 × 10 = 8.3

   v. **0.7 × 10**
   Solution:-
   On multiplying a decimal by 10, the decimal point is shifted to the right by one place.
   We have,
   0.7 × 10 = 7

   vi. **0.032 × 10**
   Solution:-
   On multiplying a decimal by 10, the decimal point is shifted to the right by one place.
   We have,
   0.032 × 10 = 0.32

2. **Find the product:**
   i. **2.397 × 100**
   Solution:-
   On multiplying a decimal by 100, the decimal point is shifted to the right by two places.
   We have,
   2.397 × 100 = 239.7

   ii. **6.83 × 100**

Solution:-
On multiplying a decimal by 100, the decimal point is shifted to the right by two places.
We have,
6.83 × 100 = 683

iii. **2.9 × 100**
Solution:-
On multiplying a decimal by 100, the decimal point is shifted to the right by two places.
We have,
2.9 × 100 = 290

iv. **0.08 × 100**
Solution:-
On multiplying a decimal by 100, the decimal point is shifted to the right by two places.
We have,
0.08 × 100 = 8

v. **0.6 × 100**
Solution:-
On multiplying a decimal by 100, the decimal point is shifted to the right by two places.
We have,
0.6 × 100 = 60

vi. **0.06 × 100**
Solution:-
On multiplying a decimal by 100, the decimal point is shifted to the right by two places.
We have,
0.003 × 100 = 0.3

3. **Find the product:**

i. **6.7314 × 1000**
Solution:-
On multiplying a decimal by 1000, the decimal point is shifted to the right by three places.
We have,
6.7314 × 1000 = 6731.4

ii. **0.182 × 1000**
Solution:-
On multiplying a decimal by 1000, the decimal point is shifted to the right by three places.
We have,
0.182 × 1000 = 182

iii. **0.076 × 1000**
Solution:-
On multiplying a decimal by 1000, the decimal point is shifted to the right by three places.
We have,
0.076 × 1000 = 76

iv. **6.25 × 1000**

Solution:-

On multiplying a decimal by 1000, the decimal point is shifted to the right by three places.

We have,

6.25 × 1000 = 6250

v. **4.8 × 1000**

Solution:-

On multiplying a decimal by 1000, the decimal point is shifted to the right by three places.

We have,

4.8 × 1000 = 4800

vi. **0.06 × 1000**

Solution:-

On multiplying a decimal by 1000, the decimal point is shifted to the right by three places.

We have,

0.06 × 1000 = 60

4. Find the product:

i. **5.4 × 16**

Solution:-

Multiply the decimal without the decimal point by the given whole number.

We have,

54 × 16 = 864

Mark the decimal point in the product to have as many places of decimal as are there are in the given decimal.

∴ 5.4 × 16 = 8.64

ii. **3.65 × 19**

Solution:-

Multiply the decimal without the decimal point by the given whole number.

We have,

365 × 19 = 6935

Mark the decimal point in the product to have as many places of decimal as are there are in the given decimal.

∴ 3.65 × 19 = 69.35

iii. **0.854 × 12**

Solution:-

Multiply the decimal without the decimal point by the given whole number.

We have,

854 × 12 = 10248

Mark the decimal point in the product to have as many places of decimal as are there are in the given decimal.

∴ 0.854 × 12 = 10.248

iv. 36.73 × 48

Solution:-

Multiply the decimal without the decimal point by the given whole number.

We have,

3673 × 48 = 176304

Mark the decimal point in the product to have as many places of decimal as are there are in the given decimal.

∴ 36.73 × 48 = 1763.04

v. 4.125 × 86

Solution:-

Multiply the decimal without the decimal point by the given whole number.

We have,

4125 × 86 = 354750

Mark the decimal point in the product to have as many places of decimal as are there are in the given decimal.

∴ 4.125 × 86 = 35.4750

vi. 104.06 × 75

Solution:-

Multiply the decimal without the decimal point by the given whole number.

We have,

10406 × 75 = 780450

Mark the decimal point in the product to have as many places of decimal as are there are in the given decimal.

∴ 104.06 × 75 = 780.450

vii. 6.032 × 124

Solution:-

Multiply the decimal without the decimal point by the given whole number.

We have,

6.032 × 124 = 747968

Mark the decimal point in the product to have as many places of decimal as are there are in the given decimal.

∴ 6.032 × 124 = 747.968

viii. 0.0146 × 69

Solution:-

Multiply the decimal without the decimal point by the given whole number.

We have,

146 × 69 = 10074

Mark the decimal point in the product to have as many places of decimal as are there are in the given decimal.

∴ 0.0146 × 69 = 1.0074

ix. 0.00125 × 327

Solution:-
Multiply the decimal without the decimal point by the given whole number.
We have,
125 × 327 = 40875
Mark the decimal point in the product to have as many places of decimal as are there are in the given decimal.
∴ 0.00125 × 327 = 0.40875

5. Find the product :-

i. 7.6 × 2.4

Solution:-
Multiply the two decimal without the decimal point just like whole numbers.

			7	6
×			2	4
+		3	0	4
+	1	5	2	
=	1	8	2	4

∴ 76 × 24 = 1824
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.
Sum of decimal places in the given decimals = 2
∴ 7.6 × 2.4 = 18.24

ii. 3.45 × 6.3

Solution:-
Multiply the two decimal without the decimal point just like whole numbers.

			3	4	5
×				6	3
+		1	0	3	5
+	2	0	7	0	
=	2	1	7	3	5

∴ 345 × 63 = 21735
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.
Sum of decimal places in the given decimals = 3
∴ 3.45 × 6.3 = 21.735

iii. 0.54 × 0.27

Solution:-
Multiply the two decimal without the decimal point just like whole numbers.

$$\begin{array}{rr} & 5\ 4 \\ \times & 2\ 7 \\ \hline + & 3\ 7\ 8 \\ + & 1\ 0\ 8 \\ \hline = & 1\ 4\ 5\ 8 \end{array}$$

$\therefore 54 \times 27 = 1458$
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.
Sum of decimal places in the given decimals = 4
$\therefore 0.54 \times 0.27 = 0.1458$

iv. 0.568 × 4.9
Solution:-
Multiply the two decimal without the decimal point just like whole numbers.

$$\begin{array}{rr} & 5\ 6\ 8 \\ \times & 4\ 9 \\ \hline + & 5\ 1\ 1\ 2 \\ + & 2\ 2\ 7\ 2 \\ \hline = & 2\ 7\ 8\ 3\ 2 \end{array}$$

$\therefore 568 \times 49 = 27832$
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.
Sum of decimal places in the given decimals = 4
$\therefore 0.568 \times 4.9 = 2.7832$

v. 6.54 × 0.09
Solution:-
Multiply the two decimal without the decimal point just like whole numbers.

$$\begin{array}{rr} & 6\ 5\ 4 \\ \times & 9 \\ \hline + & 5\ 8\ 8\ 6 \\ \hline = & 5\ 8\ 8\ 6 \end{array}$$

$\therefore 654 \times 9 = 5886$
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.
Sum of decimal places in the given decimals = 4

∴ 6.54 × 0.09 =0.5886

vi. **3.87 × 1.25**

Solution:-

Multiply the two decimal without the decimal point just like whole numbers.

			3	8	7
×			1	2	5
+		1	9	3	5
+		7	7	4	
+	3	8	7		
=	4	8	3	7	5

∴ 387 × 125 = 48375

Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.

Sum of decimal places in the given decimals = 4

∴ 3.87 × 1.25 = 4.8375

vii. **0.06 × 0.38**

Solution:-

Multiply the two decimal without the decimal point just like whole numbers.

			6
×		3	8
+		4	8
+	1	8	
=	2	2	8

∴ 6 × 38 = 228

Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.

Sum of decimal places in the given decimals = 4

∴ 0.06 × 0.38 =0.0228

viii. **0.623 × 0.75**

Solution:-

Multiply the two decimal without the decimal point just like whole numbers.

$$\begin{array}{rrrrr} & & 6 & 2 & 3 \\ \times & & & 7 & 5 \\ \hline + & & 3 & 1 & 1 & 5 \\ + & 4 & 3 & 6 & 1 & \\ \hline = & 4 & 6 & 7 & 2 & 5 \end{array}$$

∴ 623 × 75 = 46725
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.
Sum of decimal places in the given decimals = 5
∴ 0.623 × 0.75 = 0.46725

ix. 0.014 × 0.46
Solution:-
Multiply the two decimal without the decimal point just like whole numbers.

$$\begin{array}{rrrr} & & 1 & 4 \\ \times & & 4 & 6 \\ \hline + & & 8 & 4 \\ + & 5 & 6 & \\ \hline = & 6 & 4 & 4 \end{array}$$

∴ 14 × 46 = 644
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.
Sum of decimal places in the given decimals = 5
∴ 0.014 × 0.46 = 0.00644

x. 54.5 × 1.76
Solution:-
Multiply the two decimal without the decimal point just like whole numbers.

$$\begin{array}{rrrrr} & & 5 & 4 & 5 \\ \times & & 1 & 7 & 6 \\ \hline + & & 3 & 2 & 7 & 0 \\ + & 3 & 8 & 1 & 5 & \\ + & 5 & 4 & 5 & & \\ \hline = & 9 & 5 & 9 & 2 & 0 \end{array}$$

∴ 545 × 176 = 95920
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.

Sum of decimal places in the given decimals = 3
∴ 54.5 × 1.76 = 95.92

xi. **0.045 × 2.4**

Solution:-

Multiply the two decimal without the decimal point just like whole numbers.

$$\begin{array}{rr} & 45 \\ \times & 24 \\ \hline + & 180 \\ + & 90 \\ \hline = & 1080 \end{array}$$

∴ 45 × 24 = 1080
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.
Sum of decimal places in the given decimals = 4
∴ 0.045 × 2.4 = 0.108

xii. **1.245 × 6.4**

Solution:-

Multiply the two decimal without the decimal point just like whole numbers.

$$\begin{array}{rr} & 1245 \\ \times & 64 \\ \hline + & 4980 \\ + & 7470 \\ \hline = & 79680 \end{array}$$

∴ 1245 × 64 = 79680
Mark the decimal point in the product in such a way that the number of decimal places in the product is equal to the sum of the decimal place in the given decimals.
Sum of decimal places in the given decimals = 4
∴ 1.245 × 6.4 = 7.9680

6. Find the product:

i. **13 × 1.3 × 0.13**

Solution:-

First we find the product of 13 × 13 × 13
Now,
=13 × 13 = 169
= 169 × 13= 2197
Sum of decimal places in the given decimals = 3
So, the product must contain 3 places of decimals.

∴ 13 × 1.3 × 0.13 = 2.197

ii. **2.4 × 1.5 × 2.5**

Solution:-

First we find the product of 24 × 15 × 25

Now,

=24 × 15 = 360

= 360 × 25= 9000

Sum of decimal places in the given decimals = 3

So, the product must contain 3 places of decimals.

∴ 2.4 × 1.5 × 2.5 = 9

iii. **0.8 × 3.5 × 0.05**

Solution:-

First we find the product of 8 × 35 × 5

Now,

=8 × 35 = 280

= 280 × 5= 1400

Sum of decimal places in the given decimals = 4

So, the product must contain 3 places of decimals.

∴ 0.8 × 3.5 × 0.05=0.14

iv. **0.2 × 0.02 × 0.002**

Solution:-

First we find the product of 2 × 2 × 2

Now,

=2 × 2 = 4

= 4 × 2= 8

Sum of decimal places in the given decimals = 6

So, the product must contain 3 places of decimals.

∴ 0.2 × 0.02 × 0.002= 0.000008

v. **11.1 × 1.1 × 0.11**

Solution:-

First we find the product of 111 × 11 × 11

Now,

=111 × 11 = 1221

= 1221 × 11= 13431

Sum of decimal places in the given decimals = 4

So, the product must contain 3 places of decimals.

∴ 11.1 × 1.1 × 0.11= 1.3431

vi. **2.1 × 0.21 × 0.021**

Solution:-

First we find the product of 21 × 21 × 21

Now,

=21 × 21 = 441

= 441 × 21= 9261
Sum of decimal places in the given decimals = 6
So, the product must contain 3 places of decimals.
∴ 2.1 × 0.21 × 0.021= 0.009261

7. Evaluate:

i. $(1.2)^2$

Solution:-
The above question can be written as, (1.2) × (1.2)
First we find the product of,
= (12) × (12) = 144
Sum of decimal places in the given decimals = 2
So, the product must contain 2 places of decimals
∴ $(1.2)^2 = 1.44$

ii. $(0.7)^2$

Solution:-
The above question can be written as, (0.7) × (0.7)
First we find the product of,
= (7) × (7) = 49
Sum of decimal places in the given decimals = 2
So, the product must contain 2 places of decimals
∴ $(0.7)^2 = 0.49$

iii. $(0.04)^2$

Solution:-
The above question can be written as, (0.04) × (0.04)
First we find the product of,
= (4) × (4) = 16
Sum of decimal places in the given decimals = 4
So, the product must contain 2 places of decimals
∴ $(0.04)^2 = 0.0016$

iv. $(0.11)^2$

Solution:-
The above question can be written as, (0.11) × (0.11)
First we find the product of,
= (11) × (11) = 121
Sum of decimal places in the given decimals = 4
So, the product must contain 2 places of decimals
∴ $(0.11)^2 = 0.0121$

8. Evaluate:

i. $(0.3)^3$

Solution:-
The above question can be written as, (0.3) × (0.3) × (0.3)
First we find the product of,

= (3) × (3) = 9
= (9) × (3) = 27
Sum of decimal places in the given decimals = 3
So, the product must contain 2 places of decimals
∴ $(0.3)^3$ = 0.027

ii. **$(0.05)^3$**
Solution:-
The above question can be written as, (0.05) × (0.05) × (0.05)
First we find the product of,
= (5) × (5) = 25
= (25) × (5) = 125
Sum of decimal places in the given decimals = 6
So, the product must contain 2 places of decimals
∴ $(0.05)^3$ = 0.000125

iii. **$(1.5)^3$**
Solution:-
The above question can be written as, (1.5) × (1.5) × (1.5)
First we find the product of,
= (15) × (15) = 225
= (225) × (15) = 3375
Sum of decimal places in the given decimals = 3
So, the product must contain 2 places of decimals
∴ $(1.5)^3$ = 3.375

9. **A bus can cover 62.5 km in one hour. How much distance can it cover in 18 hours?**
Solution:-
A bus can cover distance in one hour is = 62.5 km
Total distance it covers in 18 hours = (62.5 × 18)
First we find the product of,
= (625 × 18) = 11250
The product contain 1 places of decimals
∴ Total distance covered by bus in 18 hours is 1125

We have,
= 0.062 ÷ 10
= (0.062/10)
= 0.0062

2. Divide:

i. 137.2 by 100

Solution:-

On dividing a decimal by 100, the decimal point is shifted to the left by two places.
We have,
= 137.2 ÷ 100
= (137.2/100)
= 1.372

ii. 23.4 by 100

Solution:-

On dividing a decimal by 100, the decimal point is shifted to the left by two places.
We have,
= 23.4 ÷ 100
= (23.4/100)
= 0.234

iii. 4.7 by 100

Solution:-

On dividing a decimal by 100, the decimal point is shifted to the left by two places.
We have,
= 4.7 ÷ 100
= (4.7/100)
= 0.047

iv. 0.3 by 100

Solution:-

On dividing a decimal by 100, the decimal point is shifted to the left by two places.
We have,
= 0.3 ÷ 100
= (0.3/100)
= 0.003

v. 0.58 by 100

Solution:-

On dividing a decimal by 100, the decimal point is shifted to the left by two places.
We have,
= 0.58 ÷ 100
= (0.58/100)
= 0.0058

vi. 0.02 by 100

Solution:-
On dividing a decimal by 100, the decimal point is shifted to the left by two places.
We have,
= 0.02 ÷ 100
= (0.02/100)
= 0.0002

3. Divide:

i. 1286.5 by 1000
Solution:-
On dividing a decimal by 1000, the decimal point is shifted to the left by three places.
We have,
= 1286.5 ÷ 1000
= (1286.5/1000)
= 1.2865

ii. 354.16 by 1000
Solution:-
On dividing a decimal by 1000, the decimal point is shifted to the left by three places.
We have,
= 354.16 ÷ 1000
= (354.16/1000)
= 0.35416

iii. 38.9 by 1000
Solution:-
On dividing a decimal by 1000, the decimal point is shifted to the left by three places.
We have,
= 38.9 ÷ 1000
= (38.9/1000)
= 0.0389

iv. 4.6 by 1000
Solution:-
On dividing a decimal by 1000, the decimal point is shifted to the left by three places.
We have,
= 4.6 ÷ 1000
= (4.6/1000)
= 0.0046

v. 0.8 by 1000
Solution:-
On dividing a decimal by 1000, the decimal point is shifted to the left by three places.
We have,
= 0.8 ÷ 1000
= (0.8/1000)
= 0.0008

vi. 2 by 1000

Solution:-

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

We have,

= 2 ÷ 1000

= (2/1000)

= 0.0002

4. Divide:-

i. 12 by 8

Solution:-

The above question can be written as, 12 ÷ 8

Then,

= (12/8) ... [÷2]

= (3/2)

$$
\begin{array}{r}
1.\ 5 \\
2\overline{)\ 3.\ 0} \\
-\ 2 \\
\hline
1\ 0 \\
-\ 1\ 0 \\
\hline
0
\end{array}
$$

∴12 ÷ 8 = 1.5

ii. 63 by 15

Solution:-

The above question can be written as, 63 ÷ 15

Then,

= (63/15) ... [÷3]

= (21/5)

$$
\begin{array}{r}
0\ 4.\ 2 \\
5\overline{)\ 2\ 1.\ 0} \\
-\ 0 \\
\hline
2\ 1 \\
-\ 2\ 0 \\
\hline
1\ 0 \\
-\ 1\ 0 \\
\hline
0
\end{array}
$$

∴63 ÷ 15 = 1.5

iii. 47 by 20

Solution:-
The above question can be written as, 47 ÷ 20
Then,
= (47/20)

```
        0 2. 3 5
    ____________
2 0 | 4 7. 0 0
  - 0
    ---
      4 7
    - 4 0
      -----
        7 0
      - 6 0
        -----
          1 0 0
        - 1 0 0
          -------
                0
```

∴47 ÷ 20 = 2.35

iv. 101 by 25

Solution:-
The above question can be written as, 101 ÷ 25
Then,
= (101/25)

```
        0 0 4. 0 4
    ______________
2 5 | 1 0 1. 0 0
  - 0
    ---
      1 0
    -   0
      -----
        1 0 1
    - 1 0 0
      -------
            1 0
          -   0
            -----
              1 0 0
          - 1 0 0
            -------
                  0
```

∴101 ÷ 25 = 4.04

v. 31 by 40

Solution:-
The above question can be written as, 47 ÷ 20
Then,
= (47/20)

```
        0 2. 3 5
    ____________
2 0 | 4 7. 0 0
  - 0
    ---
      4 7
    - 4 0
      -----
        7 0
      - 6 0
        -----
          1 0 0
        - 1 0 0
          -------
                0
```

∴47 ÷ 20 = 2.35

iv. 101 by 25

Solution:-
The above question can be written as, 101 ÷ 25
Then,
= (101/25)

```
        0 0 4. 0 4
    ______________
2 5 | 1 0 1. 0 0
  - 0
    ---
      1 0
    -   0
      -----
        1 0 1
    - 1 0 0
      -------
            1 0
          -   0
            -----
              1 0 0
          - 1 0 0
            -------
                  0
```

∴101 ÷ 25 = 4.04

v. 31 by 40

Solution:-
The above question can be written as, 31 ÷ 40
Then,
= (31/40)

		0	0.	7	7	5
40		3	1.	0	0	0
	−	0				
		3	1			
	−		0			
		3	1	0		
	−	2	8	0		
			3	0	0	
		−	2	8	0	
				2	0	0
			−	2	0	0
						0

∴31 ÷ 40= 0.775

vi. **11 by 16**
Solution:-
The above question can be written as, 11 ÷ 16
Then,
= (31/40)

```
        0 0. 6 8 7 5
    16 |1 1. 0 0 0 0
      - 0
        1 1
      -   0
        1 1 0
      -   9 6
          1 4 0
        - 1 2 8
            1 2 0
          - 1 1 2
                8 0
              - 8 0
                  0
```

∴11 ÷ 16=0.06875

5. **Divide:**

   i. **43.2 by 6**

   Solution:-

   Perform the division by considering the dividend a whole number.

   When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

   We have,

   43.2÷6

```
      0 7. 2
   6 |4 3. 2
   - 0
     4 3
   - 4 2
       1 2
     - 1 2
         0
```

∴43.2÷6 = 7.2

   ii. **60.48 by 12**

   Solution:-

Perform the division by considering the dividend a whole number.
When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.
We have,
60.48÷12

```
         0  5. 0  4
       ____________
 1  2 | 6  0. 4  8
    -   0
       ---
        6  0
    -   6  0
       ------
           0  4
       -      0
          -------
              4  8
          -   4  8
             ------
                 0
```

∴60.48÷12 = 5.04

iii. **117.6 by 21**
Solution:-
Perform the division by considering the dividend a whole number.
When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.
We have,
117.6÷21

```
         0  0  5. 6
       ____________
 2  1 | 1  1  7. 6
    -   0
       ---
        1  1
    -      0
       ------
        1  1  7
    -   1  0  5
       ---------
           1  2  6
       -   1  2  6
          ---------
                 0
```

∴117.6÷21=5.6

iv. 217.44 by 18

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

217.44÷18

```
      0 1 2. 0 8
 1 8 |2 1 7. 4 4
    - 0
      2 1
    - 1 8
        3 7
      - 3 6
          1 4
        -   0
          1 4 4
        - 1 4 4
              0
```

∴217.44÷18=12.08

v. 2.575 by 25

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

2.575÷25

```
      0. 1 0 3
 2 5 |2. 5 7 5
    - 0
      2  5
    - 2  5
         0 7
      -    0
           7 5
         - 7 5
             0
```

∴2.575÷25= 0.103

vi. **6.08 by 8**

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

6.08÷6

```
     0. 7 6
  8 |6. 0 8
  - 0
    6  0
  - 5  6
       4  8
     - 4  8
          0
```

∴6.08÷6=0.76

vii. **0.765 by 9**

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

0.765÷9

```
     0. 0 8 5
  9 |0. 7 6 5
  - 0
    0  7
  -    0
       7  6
     - 7  2
          4  5
        - 4  5
             0
```

∴0.765÷9=0.085

viii. 0.768 by16

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

0.768÷16

```
        0. 0 4 8
     ___________
1 6 | 0. 7 6 8
    - 0
    ---
      0  7
    -    0
    -------
         7 6
       - 6 4
       -----
         1 2 8
       - 1 2 8
       -------
             0
```

∴0.769÷16=0.048

ix. 0.175 by 25

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

0.175÷25

```
        0. 0 0 7
     ___________
2 5 | 0. 1 7 5
    - 0
    ---
      0  1
    -    0
    -------
         1 7
       -   0
       -----
         1 7 5
       - 1 7 5
       -------
             0
```

∴0.175÷25= 0.007

x. **0.3322 by 11**

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

0.3322÷11

```
      0. 0 3 0 2
11 | 0. 3 3 2 2
   - 0
     0 3
   -   0
       3 3
     - 3 3
         0 2
       -   0
           2 2
         - 2 2
             0
```

∴0.3322÷11= 0.0302

xi. **2.13 by 15**

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

2.13÷15

```
      0. 1 4
15 | 2. 1 3
   - 0
     2 1
   - 1 5
       6 3
     - 6 0
         3
```

∴2.13÷15 = 0.14

xii. 6.54 by 12

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

6.54÷12

```
        0. 5 4 5
     ___________
 1 2 | 6. 5 4 0
    - 0
      ---
      6  5
    - 6  0
      -----
         5 4
       - 4 8
         -----
           6 0
         - 6 0
           -----
             0
```

∴6.54÷12=0.545

xiii. 5.52 by 16

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

5.52÷16

```
        0. 3 4 5
     ___________
 1 6 | 5. 5 2 0
    - 0
      ---
      5  5
    - 4  8
      -----
         7 2
       - 6 4
         -----
           8 0
         - 8 0
           -----
             0
```

∴5.52÷16=0.345

xiv. **1.001 by 14**

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

1.001÷14

```
        0. 0 7 1 5
    14 |1. 0 0 1 0
       - 0
        1 0
      -   0
        1 0 0
      -   9 8
            2 1
          - 1 4
              7 0
            - 7 0
                0
```

∴1.001÷14=0.0715

xv. **0.477 by 18**

Solution:-

Perform the division by considering the dividend a whole number.

When the division of whole-part of the dividend is complete, put the decimal point in the quotient and proceed with the division as in case of whole numbers.

We have,

0.477÷18

$$
\begin{array}{r}
0.0265 \\
18\overline{)0.4770} \\
-\,0 \\
\hline
04 \\
-\,0 \\
\hline
47 \\
-\,36 \\
\hline
117 \\
-\,108 \\
\hline
90 \\
-\,90 \\
\hline
0
\end{array}
$$

$\therefore 0.477 \div 18 = 0.0265$

6. Divide:

i. 16.46 ÷ 20

Solution:

The above question can be written as,

$\Rightarrow (16.46/20)$

Multiply by 100 for both numerator and denominator, then we get,

$= [(16.46 \times 100)/ (20 \times 100)]$

$= (1646/2000)$

```
              0 0 0 0. 8 2 3
       2 0 0 0 | 1 6 4 6. 0 0 0
             - 0
             ---
               1 6
             -   0
             -----
               1 6 4
             -     0
             -------
               1 6 4 6
             -       0
             ---------
               1 6 4 6 0
             - 1 6 0 0 0
             -----------
                   4 6 0 0
                 - 4 0 0 0
                 ---------
                     6 0 0 0
                   - 6 0 0 0
                   ---------
                           0
```

∴ (1646/2000) = 0.823

ii. **403.8 ÷ 30**

Solution:

The above question can be written as,

⇒ (403.8/30)

Multiply by 10 for both numerator and denominator, then we get,

= [(403.8 × 10)/ (30×10)]

= (4038/300)

```
          0 0 1 3. 4 6
      ____________________
3 0 0 | 4 0 3 8. 0 0
      - 0
        ---
        4 0
      -   0
        -----
        4 0 3
      - 3 0 0
        -------
        1 0 3 8
      -   9 0 0
        ---------
          1 3 8 0
        - 1 2 0 0
          -------
            1 8 0 0
          - 1 8 0 0
            -------
                  0
```

∴ (4038/300) = 13.46

iii. **19.2 ÷ 80**

Solution:

The above question can be written as,

⇒ (19.2/80)

Multiply by 10 for both numerator and denominator, then we get,

= [(19.2 × 10)/ (80×10)]

= (192/800)

```
          0 0 0. 2 4
      ____________________
8 0 0 | 1 9 2. 0 0
      - 0
        ---
        1 9
      -   0
        -----
        1 9 2
      -     0
        -------
        1 9 2 0
      - 1 6 0 0
        ---------
          3 2 0 0
        - 3 2 0 0
          -------
                0
```

∴ (192/800) = 0.24

iv. **156.8 ÷ 200**

Solution:

The above question can be written as,

⇒ (156.8/200)

Multiply by 10 for both numerator and denominator, then we get,

= [(156.8 × 10)/ (200×10)]

= (1568/2000)

```
           0 0 0 0. 7 8 4
 2 0 0 0 | 1 5 6 8. 0 0 0
         - 0
           -
           1 5
         -   0
           ---
           1 5 6
         -     0
           -----
           1 5 6 8
         -       0
           -------
           1 5 6 8 0
         - 1 4 0 0 0
           ---------
             1 6 8 0 0
           - 1 6 0 0 0
             ---------
                 8 0 0 0
               - 8 0 0 0
                 -------
                       0
```

∴ (1568/2000) = 0.784

v. **12.8 ÷ 500**

Solution:

The above question can be written as,

⇒ (12.8/500)

Multiply by 10 for both numerator and denominator, then we get,

= [(12.8 × 10)/ (500×10)]

= (128/5000)

```
           0 0 0 0. 0 4 5 2
         ___________________
4 0 0 0 0 | 1 8 0 8. 0 0 0 0
         - 0
           ---
           1 8
         -   0
           -----
           1 8 0
         -     0
           -------
           1 8 0 8
         -       0
           ---------
           1 8 0 8 0
         -         0
           -----------
           1 8 0 8 0 0
         - 1 6 0 0 0 0
           -------------
             2 0 8 0 0 0
           - 2 0 0 0 0 0
             -------------
                   8 0 0 0 0
                 - 8 0 0 0 0
                   ---------
                           0
```

∴ (1808/40000) = 0.0256

7. Divide:

i. 3.28 by 0.8

Solution:-

The above question can be written as,

⇒ (3.28/0.8)

Multiply by 10 for both numerator and denominator, then we get,

= [(3.28 × 10)/ (0.8×10)]

= (32.8/8)

```
   0 4. 1
  _______
8 | 3 2. 8
- 0
  ---
  3 2
- 3 2
  -----
    0 8
  -   8
    ---
      0
```

```
           0 0 0 0. 0 4 5 2
4 0 0 0 0 | 1 8 0 8. 0 0 0 0
        - 0
          1 8
        -   0
          1 8 0
        -     0
          1 8 0 8
        -       0
          1 8 0 8 0
        -         0
          1 8 0 8 0 0
        - 1 6 0 0 0 0
            2 0 8 0 0 0
          - 2 0 0 0 0 0
                8 0 0 0 0
              - 8 0 0 0 0
                        0
```

∴ (1808/40000) = 0.0256

7. Divide:

i. 3.28 by 0.8

Solution:-

The above question can be written as,

⇒ (3.28/0.8)

Multiply by 10 for both numerator and denominator, then we get,

= [(3.28 × 10)/ (0.8×10)]

= (32.8/8)

```
   0 4. 1
8 | 3 2. 8
 - 0
   3 2
 - 3 2
     0 8
   -   8
       0
```

∴ (32.8/8)=4.1

ii. 0.288 by 0.9

Solution:-

The above question can be written as,

⇒ (0.288/0.9)

Multiply by 10 for both numerator and denominator, then we get,

= [(0.288 × 10)/ (0.9×10)]

= (2.88/9)

```
     0. 3 2
  9 | 2. 8 8
  -  0
     2  8
  -  2  7
        1 8
     -  1 8
          0
```

∴ (2.88/9)=0.32

iii. 25.395 by 1.5

Solution:-

The above question can be written as,

⇒ (25.395/1.5)

Multiply by 10 for both numerator and denominator, then we get,

= [(25.395 × 10)/ (1.5×10)]

= (253.95/15)

```
         0 1 6. 9 3
   1 5 | 2 5 3. 9 5
       - 0
         2 5
       - 1 5
         1 0 3
       -   9 0
           1 3 9
         - 1 3 5
                 4 5
               - 4 5
                   0
```

∴ (253.95/15)=16.93

iv. 2.0484 by 0.18

Solution:-

The above question can be written as,

⇒ (2.0484/0.18)

Multiply by 100 for both numerator and denominator, then we get,

= [(2.0484× 100)/ (0.18×100]

= (204.84/18)

```
        0 1 1. 3 8
  1 8 | 2 0 4. 8 4
      - 0
        ---
        2 0
      - 1 8
        -----
          2 4
        - 1 8
          -----
            6 8
          - 5 4
            -----
            1 4 4
          - 1 4 4
            -------
                0
```

∴ (204.84/18) = 11.38

v. 0.228 by 0.38

Solution:-

The above question can be written as,

⇒ (0.228/0.38)

Multiply by 100 for both numerator and denominator, then we get,

= [(0.228× 100)/ (0.38×100]

= (22.8/38)

```
        0 0. 6
  3 8 | 2 2. 8
      - 0
        ---
        2 2
      -   0
        -----
        2 2 8
      - 2 2 8
        -------
            0
```

∴ (22.8/38) = 0.6

vi. **0.8085 by 0.35**
Solution:-
The above question can be written as,
⇒ (0.8085/0.35)
Multiply by 100 for both numerator and denominator, then we get,
= [(0.8085× 100)/ (0.35×100)]
= (80.85/35)

```
        0 2. 3 1
     ___________
 3 5 | 8 0. 8 5
     - 0
     ---
       8 0
     - 7 0
     -----
       1 0 8
     - 1 0 5
     -------
           3 5
         - 3 5
         -----
             0
```

∴ (80.85/35) = 2.31

vii. **21.976 by 1.64**
Solution:-
The above question can be written as,
⇒ (21.976/1.64)
Multiply by 100 for both numerator and denominator, then we get,
= [(21.976× 100)/ (1.64×100)]
= (2197.6/164)

```
          0 0 1 3. 4
   1 6 4 |2 1 9 7. 6
        - 0
          2 1
        -   0
          2 1 9
        - 1 6 4
            5 5 7
          - 4 9 2
              6 5 6
            - 6 5 6
                  0
```

∴ (2197.6/164) = 13.4

viii. **11.04 by 1.6**

Solution:-

The above question can be written as,

⇒ (11.04/1.6)

Multiply by 10 for both numerator and denominator, then we get,

= [(11.04× 10)/ (1.6×10]

= (110.4/16)

```
        0 0 6. 9
   1 6 |1 1 0. 4
      - 0
        1 1
      -   0
        1 1 0
      -   9 6
          1 4 4
        - 1 4 4
              0
```

∴ (110.4/16) = 6.9

ix. **6.612 by 11.6**

Solution:-

The above question can be written as,

⇒ (6.612/11.6)

Multiply by 10 for both numerator and denominator, then we get,

= [(6.612× 10)/ (11.6×10]
= (66.12/116)

```
        0 0. 5 7
116 | 6 6. 1 2
    - 0
      6 6
    -   0
      6 6 1
    - 5 8 0
        8 1 2
      - 8 1 2
            0
```

∴ (66.12/116) = 0.57

x. **0.076 by 0.19**
Solution:-
The above question can be written as,
⇒ (0.076/0.19)
Multiply by 100 for both numerator and denominator, then we get,
= [(0.076× 100)/ (0.19×100]
= (7.6/19)

```
     0. 4
19 | 7. 6
   - 0
     7 6
   - 7 6
       0
```

∴ (7.6/19) = 0.4

xi. **148 by 0.074**
Solution:-
The above question can be written as,
⇒ (148/0.074)
Multiply by 1000 for both numerator and denominator, then we get,
= [(148× 1000)/ (0.074×1000]
= (148000/74)

```
      0 0 2 0 0 0
    ____________
74 | 1 4 8 0 0 0
   - 0
   ---
     1 4
   -   0
   -----
     1 4 8
   - 1 4 8
   -------
         0 0
       -   0
       -----
           0 0
         -   0
         -----
             0 0
           -   0
           -----
               0
```

∴ (148000/74) = 2000

xii. **16.578 by 5.4**

Solution:-

The above question can be written as,

⇒ (16.578/5.4)

Multiply by 10 for both numerator and denominator, then we get,

= [(16.578× 10)/ (5.4×10]

= (165.78/54)

```
      0 0 3. 0 7
    ____________
54 | 1 6 5. 7 8
   - 0
   ---
     1 6
   -   0
   -----
     1 6 5
   - 1 6 2
   -------
         3 7
       -   0
       -----
         3 7 8
       - 3 7 8
       -------
             0
```

∴ (165.78/54) = 3.07

xiii. **28 by 0.56**

Solution:-

The above question can be written as,

⇒ (28/0.56)

Multiply by 100 for both numerator and denominator, then we get,

= [(28× 100)/ (0.56×100]

= (2800/56)

```
        0  0  5  0
    ┌──────────────
5 6 │ 2  8  0  0
  − 0
    ──
      2  8
    −    0
      ─────
      2  8  0
    − 2  8  0
      ─────────
            0  0
          −    0
            ─────
               0
```

∴ (2800/56) = 50

xiv. **204 by 0.17**

Solution:-

The above question can be written as,

⇒ (204/0.17)

Multiply by 100 for both numerator and denominator, then we get,

= [(204× 100)/ (0.17×100]

= (20400/17)

```
        0  1  2  0  0
    ┌──────────────────
1 7 │ 2  0  4  0  0
  − 0
    ──
      2  0
    − 1  7
      ──────
         3  4
       − 3  4
         ─────
            0  0
          −    0
            ─────
               0  0
             −    0
               ─────
                  0
```

∴ (20400/17) = 1200

xv. **3 by 80**

Solution:-

The above question can be written as,

⇒ (3/80)

```
          0. 0 3 7 5
    8 0 | 3. 0 0 0 0
        - 0
        -----
          3 0
        -   0
        -------
          3 0 0
        - 2 4 0
        ---------
            6 0 0
          - 5 6 0
          ---------
              4 0 0
            - 4 0 0
            ---------
                  0
```

∴ (3/80) = 0.0375

8. The total cost of 24 chairs is ₹ 9255.60. Find the cost of each chair.

Solution:-

The number of chairs= 24

The cost of 24 chairs is = ₹ 9255.60

Then the cost of each chair = (9255.60/24)

```
        0 3 8 5. 6 5
     ___________________
 2 4 | 9 2 5 5. 6 0
   - 0
     ---
     9 2
   - 7 2
     -----
     2 0 5
   - 1 9 2
     -------
       1 3 5
     - 1 2 0
       -------
         1 5 6
       - 1 4 4
         -------
           1 2 0
         - 1 2 0
           -------
                 0
```

∴ the cost of each chair is ₹ 385.65

RS Aggarwal Solutions for Class 7 Maths chapter 3
Decimals

EXERCISE 3E PAGE: 50

Mark against the correct answer in each of the following:

1. 0.06=?

a) 3/5 b) (3/50) c) (3/500) d) none of these

Solution:-

a. (3/50)

Because,

=0.06
= (6/100) ... [÷ 2]
= (3/50)

2. 1.04 =?

a) [1(1/50)] b) [1(2/5)] c) [1(1/25)] d) none of these

Solution:-

C) [1(1/25)]

Because,

=1.04
= (104/100)
= (26/25) ... [÷ 4]
= [1(1/25)]

3. [2(2/25)] = ?

a) 2.8 b)2.08 c)2.008 d) none of these

Solution:-

b) 2.08

Because,

= [2(2/25)]
= (52/25) ... [÷ 25]
= 2.08

4. 6cm =?

a) 0.006km b) 0.0006km c)0.00006km d) none of these

Solution:-

C) 0.00006km

WKT,

=1m = 100 cm

Then,

= 6cm
= (6/100) m
= 0.06m

WKT,

= 1km = 1000m

Then,

= 0.06m
= (0.06/1000)

= (0.00006) km

5. 70 g =?

a) 0.7 kg **b) 0.07 kg** **c)0.007kg** **d)none of these**

Solution:-

B) 0.07kg

WKT,

= 1 kg = 1000g
= 70 g
= (70/1000)
= 0.07 kg

6. 5 kg 6g =?

a) 5.0006 kg **b) 5.06 kg** **c)5.006 kg** **d) 5.6 kg**

Solution:-

C) 5.006kg

WKT,

= 1 kg = 1000g
= 5kg = 5000g
= 5000 + 6
= 5006g
= (5006/1000)
= 5.006kg

7. 2 km 5 m =?

a) 2.5 km **b)2.05km** **c)2.005km** **d)2.0005km**

Solution:-

c) 2.005km

WKT,

= 1 km = 1000m
= 2 km = 2000m
= 2000 + 5
= 2005m
= (2005/1000)

8. (1.007-0.7) =?

a) 1 **b)0.37** **c)0.307** **d)none of these**

Solution:-

C) 0.307

First convert the given decimals into like decimals

= (1.007 – 0.700)
= 0.307

9. What should be subtracted from 0.1 to get 0.03?

a) 0.7 **b) 0.07** **c)0.007** **d)none of these**

Solution:-

C) 0.07

Let us assume the missing number be x,
Then,
= 0.1 – x = 0.03
By sending – x from left hand side to the right hand side it become x and 0.03 from right hand side to the left hand side it become -0.03. We get,
= 0.1 – 0.03 = x
= 0.07

10. What should be added to 3.07 to get 3.5?

a) 0.57 b)0.34 c)0.43 d)0.02

Solution:-

C) 0.43
Let us assume the missing number be x,
Then,
= 3.07 + x = 3.5
By sending 3.07 from left hand side to the right hand side it become -3.07. We get,
= 3.5 – 3.07 = x
= 0.43