

EXERCISE 3.1

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1. Write each of the following as decimals:

(i) $(8/100)$

(ii) $20 + (9/10) + (4/100)$

(iii) $23 + (2/10) + (6/1000)$

Solution:

(i) Given $(8/100)$

Mark the decimal point two places from right to left

$$(8/100) = 0.08$$

(ii) Given $20 + (9/10) + (4/100)$

First convert the fractions $(9/10)$ and $(4/100)$ to decimals

Consider $(9/10)$

Mark the decimal point one place from right to left

$$(9/10) = 0.9$$

Now consider $(4/100)$

Mark the decimal point two places from right to left

$$(4/100) = 0.04$$

$$20 + (9/10) + (4/100) = 20 + 0.9 + 0.04$$

$$= 20.94$$

(iii) Given $23 + (2/10) + (6/1000)$

First convert the fractions $(2/10)$ and $(6/1000)$ to decimals

Consider $(2/10)$

Mark the decimal point one place from right to left

$$(2/10) = 0.2$$

Now consider $(6/1000)$

Mark the decimal point three places from right to left

$$(6/1000) = 0.006$$

$$23 + (2/10) + (6/1000) = 23 + 0.2 + 0.006$$

$$= 23.206$$

2. Convert each of the following fractions as decimals:

(i) 0.04

(ii) 2.34

(iii) 0.342

(iv) 17.38

Solution:

(i) Given 0.04

Here we have to convert given decimals into fractions

0.04 can be written as $(0.04/1)$

Now multiply both numerator and denominator by 100 then we get

$$(0.04/1) = (0.04 \times 100 / 1 \times 100)$$

$$= (4/100)$$

$$= (1/25)$$

(ii) Given 2.34

Here we have to convert given decimals into fractions

2.34 can be written as $(2.34/1)$

Now multiply both numerator and denominator by 100 then we get

$$(2.34/1) = (2.34 \times 100 / 1 \times 100)$$

$$= (234/100)$$

$$= (117/50)$$

(iii) Given 0.342

Here we have to convert given decimals into fractions

0.342 can be written as $(0.342/1)$

Now multiply both numerator and denominator by 1000 then we get

$$(0.342/1) = (0.342 \times 1000 / 1 \times 1000)$$

$$= (342/1000)$$

$$= (171/500)$$

(iv) Given 17.38

Here we have to convert given decimals into fractions

17.38 can be written as $(17.38/1)$

Now multiply both numerator and denominator by 100 then we get

$$(17.38/1) = (17.38 \times 100 / 1 \times 100)$$

$$= (1738/100)$$

$$= (869/50)$$

3. Express the following fractions as decimals:

(i) $23/10$

(ii) $25 (1/8)$

(iii) $39 (7/35)$

(iv) $15 (1/25)$

Solution:

(i) Given $23/10$

Divide 23 by 10 we get

$$23/10 = 2.3$$

(ii) Given $25 (1/8)$

$25 (1/8)$ can be written as

$$25 (1/8) = 25 + (1/8)$$

Consider $(1/8)$,

Now multiply both numerator and denominator by 125 to get 1000 as denominator

$$25 (1/8) = 25 + (1/8) = 25 + (1 \times 125 / 8 \times 125)$$

$$= 25 + (125/1000)$$

$$= 25 + 0.125$$

$$= 25.125$$

(iii) Given $39 (7/35)$

First convert given mixed fraction $39 (7/35)$ into improper fraction

$$39 (7/35) = 1372/35$$

By dividing we get

$$39 (7/35) = 39.2$$

(iv) Given $15 (1/25)$

$15 (1/25)$ can be written as

$$15 (1/25) = 15 + (1/25)$$

Consider $(1/25)$,

Now multiply both numerator and denominator by 4 to get 100 as denominator

$$15 (1/25) = 15 + (1/25) = 15 + (1 \times 4 / 25 \times 4)$$

$$= 15 + (4/100)$$

$$= 15 + 0.04$$

$$= 15.04$$

4. Add the following:

- (i) 41.8, 39.24, 5.01 and 62.6
(ii) 18.03, 146.3, .829 and 5.324

Solution:

- (i) Given 41.8, 39.24, 5.01 and 62.6

$$\begin{array}{r} 41.8 \\ 39.2 \\ 5.01 \\ + 62.6 \\ \hline 148.65 \end{array}$$

- (ii) Given 18.03, 146.3, 0.829 and 5.324

$$\begin{array}{r} 18.03 \\ 146.3 \\ 0.829 \\ + 5.324 \\ \hline 170.483 \end{array}$$

5. Find the value of:

- (i) $9.756 - 6.28$
(ii) $48.1 - 0.37$
(iii) $108.032 - 86.8$
(iv) $100 - 26.32$

Solution:

- (i) Given $9.756 - 6.28$

$$\begin{array}{r} 9.756 \\ - 6.28 \\ \hline 3.476 \end{array}$$

- (ii) Given $48.1 - 0.37$

$$\begin{array}{r} 48.1 \\ - 0.37 \\ \hline 47.73 \end{array}$$

- (iii) Given $108.032 - 86.8$

$$\begin{array}{r} 108.032 \\ - \underline{86.8} \\ 21.232 \end{array}$$

(iv) Given $100 - 26.32$

$$\begin{array}{r} 100.00 \\ - \underline{26.32} \\ 73.68 \end{array}$$

6. Take out of 3.547 from 7.2

Solution:

Given 3.547 from 7.2

$$\begin{array}{r} 7.2 \\ - \underline{3.547} \\ 3.653 \end{array}$$

7. What is to be added to 36.85 to get 59.41?

Solution:

Given 36.85 and 59.41

Let the unknown number be x

$$x + 36.85 = 59.41$$

$$x = 59.41 - 36.85$$

$$x = 22.56$$

Hence 22.56 is to be added to 36.85 to get 59.41

8. What is to be subtracted from 17.1 to get 2.051?

Solution:

Let the unknown number be x

Given that x is to be subtracted from 17.1 to get 2.051

$$17.1 - x = 2.051$$

$$17.1 - 2.051 = x$$

$$x = 17.1 - 2.051$$

$$x = 15.049$$

9. By how much should 34.79 be increased to get 70.15?

Solution:

Let x be the unknown number

$$x + 34.79 = 70.15$$

$$x = 70.15 - 34.79$$

$$x = 35.36$$

35.36 should be increased to 34.79 to get 70.15

10. By how much should 59.71 be decreased to get 34.58?

Solution:

Let x be the unknown number

$$59.71 - x = 34.58$$

$$59.71 - 34.58 = x$$

$$x = 59.71 - 34.58$$

$$x = 25.13$$

25.13 should be decreased by 59.71 to get 34.58

EXERCISE 3.2

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1. Find the product:

(i) 4.74×10

(ii) 0.45×10

(iii) 0.0215×10

(iv) 0.0054×10

Solution:

(i) Given 4.74×10

Here we have to do normal multiplication with shifting the decimal point by one place to the right

Therefore $4.74 \times 10 = 47.4$

(ii) Given 0.45×10

Here we have to do normal multiplication with shifting the decimal point by one place to the right

Therefore $0.45 \times 10 = 4.5$

(iii) Given 0.0215×10

Here we have to do normal multiplication with shifting the decimal point by one place to the right

Therefore $0.0215 \times 10 = 0.215$

(iv) Given 0.0054×10

Here we have to do normal multiplication with shifting the decimal point by one place to the right

Therefore $0.0054 \times 10 = 0.054$

2. Find the product:

(i) 35.853×100

(ii) 42.5×100

(iii) 12.075×100

(iv) 100×0.005

Solution:

(i) Given 35.853×100

Here we have to do normal multiplication with shifting the decimal point by two places to the right

$$\text{Therefore } 35.853 \times 100 = 3585.3$$

(ii) Given 42.5×100

Here we have to do normal multiplication with shifting the decimal point by two places to the right

$$\text{Therefore } 42.5 \times 100 = 4250$$

(iii) Given 12.075×100

Here we have to do normal multiplication with shifting the decimal point by two places to the right

$$\text{Therefore } 12.075 \times 100 = 1207.50$$

(iv) Given 100×0.005

Here we have to do normal multiplication with shifting the decimal point by two places to the right

$$\text{Therefore } 100 \times 0.005 = 0.5$$

3. Find the product:

(i) 2.506×1000

(ii) 20.708×1000

(iii) 0.0529×1000

(iv) 1000×0.1

Solution:

(i) Given 2.506×1000

Here we have to do normal multiplication with shifting the decimal point by three places to the right

$$\text{Therefore } 2.506 \times 1000 = 2506$$

(ii) Given 20.708×1000

Here we have to do normal multiplication with shifting the decimal point by three places to the right

$$\text{Therefore } 20.708 \times 1000 = 20708$$

(iii) Given 0.0529×1000

Here we have to do normal multiplication with shifting the decimal point by three places to the right

Therefore $0.0529 \times 1000 = 52.9$

(iv) Given 1000×0.1

Here we have to do normal multiplication with shifting the decimal point by three places to the right

Therefore $1000 \times 0.1 = 100$

4. Find the product:

(i) 3.14×17

(ii) 0.745×12

(iii) 28.73×47

(iv) 0.0415×59

Solution:

(i) Given 3.14×17

First multiply as usual without looking at the decimal point

$$3.14 \times 17 = 578$$

Now mark the decimal point in the product to have one place of decimal as there in the given decimal

$$3.14 \times 17 = 57.8$$

(ii) Given 0.745×12

First multiply as usual without looking at the decimal point

$$0.745 \times 12 = 894$$

Now mark the decimal point in the product to have three places of decimal as there in the given decimal

$$0.745 \times 12 = 8.94$$

(iii) Given 28.73×47

First multiply as usual without looking at the decimal point

$$28.73 \times 47 = 135031$$

Now mark the decimal point in the product to have two places of decimal as there in the given decimal

$$28.73 \times 47 = 1350.31$$

(iv) Given 0.0415×59

First multiply as usual without looking at the decimal point

$$0.0415 \times 59 = 24485$$

Now mark the decimal point in the product to have four places of decimal as there in the given decimal

$$0.0415 \times 59 = 2.4485$$

5. Find:

(i) 1.07×0.02

(ii) 211.9×1.13

(iii) 10.05×1.05

(iv) 13.01×5.01

Solution:

(i) Given 1.07×0.02

First multiply as usual without looking at the decimal point

$$1.07 \times 0.02 = 00214$$

Sum of the decimals is 4

Now mark the decimal point in the product to have four places of decimal as there in the given decimal

$$1.07 \times 0.02 = 0.0214$$

(ii) Given 211.9×1.13

First multiply as usual without looking at the decimal point

$$211.9 \times 1.13 = 239447$$

Sum of the decimals is 3

Now mark the decimal point in the product to have three places of decimal as there in the given decimal

$$211.9 \times 1.13 = 239.447$$

(iii) Given 10.05×1.05

First multiply as usual without looking at the decimal point

$$10.05 \times 1.05 = 105525$$

Sum of the decimals is 4

Now mark the decimal point in the product to have four places of decimal as there in the given decimal

$$10.05 \times 1.05 = 10.5525$$

(iv) Given 13.01×5.01

First multiply as usual without looking at the decimal point

$$13.01 \times 5.01 = 651801$$

Sum of the decimals is 4

Now mark the decimal point in the product to have four places of decimal as there in the given decimal

$$13.01 \times 5.01 = 65.1801$$

6. Find the area of a rectangle whose length is 5.5m and breadth is 3.4m.

Solution:

Given length of rectangle = 5.5m

Breadth of rectangle = 3.4 m

Area of rectangle = length \times breadth

$$= 5.5 \times 3.4$$

$$= 18.7 \text{ m}^2$$

7. If the cost of a book is Rs 25.57, find the cost of 24 such books.

Solution:

Given cost of a book is Rs 25.57

Cost of 24 books = 25.57×24

$$= \text{Rs } 618.00$$

8. A car covers a distance of 14.75km in one liter of petrol. How much distance it will cover in 15.5 liters of petrol?

Solution:

Given that distance covered by car in 1 liter of petrol = 14.75 km

Distance covered by car in 15.5 liters of petrol = 14.75×15.5

$$= 228.625 \text{ km}$$

9. One kg of rice costs Rs 42.65. What will be the cost of 18.25 kg of rice?

Solution:

Given cost of 1kg of rice = 42.65

Cost of 18.25kg of rice = 42.65×18.25

= Rs 778.3625

10. One meter of cloth costs Rs 152.50. What is the cost of 10.75 meters of cloth?

Solution:

Given that cost of 1m cloth = Rs 152.50

Cost of 10.75 m of cloth = 152.50×10.75

= Rs 1639.375



EXERCISE 3.3

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1. Divide:**(i) 142.45 by 10****(ii) 54.25 by 10****(iii) 3.45 by 10****(iv) 0.57 by 10****(v) 0.0043 by 10****(vi) 0.004 by 10****Solution:****(i) Given 142.45 by 10**

Now shifting the decimal point by one place to the left we can get the result
 $142.45/10 = 14.245$

(ii) Given 54.25 by 10

Now shifting the decimal point by one place to the left we can get the result
 $54.25/10 = 5.425$

(iii) Given 3.45 by 10

Now shifting the decimal point by one place to the left we can get the result
 $3.45/10 = 0.345$

(iv) Given 0.57 by 10

Now shifting the decimal point by one place to the left we can get the result
 $0.57/10 = 0.057$

(v) Given 0.0043 by 10

Now shifting the decimal point by one place to the left we can get the result
 $0.0043/10 = 0.0043$

(vi) Given 0.004 by 10

Now shifting the decimal point by one place to the left we can get the result
 $0.004/10 = 0.0004$

2. Divide:**(i) 459.5 by 100**

(ii) 74.3 by 100

(iii) 5.8 by 100

(iv) 0.7 by 100

(v) 0.48 by 100

(vi) 0.03 by 100

Solution:

(i) Given 459.5 by 100

Now shifting the decimal point by two places to the left we can get the result
 $459.5/100 = 4.595$

(ii) Given 74.3 by 100

Now shifting the decimal point by two places to the left we can get the result
 $74.3/100 = 0.743$

(iii) Given 5.8 by 100

Now shifting the decimal point by two places to the left we can get the result
 $5.8/100 = 0.058$

(iv) Given 0.7 by 100

Now shifting the decimal point by two places to the left we can get the result
 $0.7/100 = 0.007$

(v) Given 0.48 by 100

Now shifting the decimal point by two places to the left we can get the result
 $0.48/100 = 0.0048$

(vi) Given 0.03 by 100

Now shifting the decimal point by two places to the left we can get the result
 $0.03 / 100 = 0.0003$

3. Divide:

(i) 235. 41 by 1000

(ii) 29.5 by 1000

(iii) 3.8 by 1000

(iv) 0.7 by 1000

Solution:

(i) Given 235. 41 by 1000

Now shifting the decimal point by three places to the left we can get the result
 $235.41/1000 = 0.23541$

(ii) Given 29.5 by 1000

Now shifting the decimal point by three places to the left we can get the result
 $29.5/1000 = 0.0295$

(iii) Given 3.8 by 1000

Now shifting the decimal point by three places to the left we can get the result
 $3.8 /1000 = 0.0038$

(iv) Given 0.7 by 1000

Now shifting the decimal point by three places to the left we can get the result
 $0.7 /1000 = 0.0007$

4. Divide:

(i) 0.45 by 9

(ii) 217.44 by 18

(iii) 319.2 by 2.28

(iv) 40.32 by 9.6

(v) 0.765 by 0.9

(vi) 0.768 by 1.6

Solution:

(i) Given 0.45 by 9

$$\begin{array}{r} 0.05 \\ 9 \overline{) 0.45} \\ \underline{- 0} \\ 04 \\ \underline{- 0} \\ 45 \\ \underline{- 45} \\ 0 \end{array}$$

$$0.45 \text{ by } 9 = 0.05$$

(ii) Given 217.44 by 18

$$\begin{array}{r}
 12.08 \\
 18 \overline{) 217.44} \\
 \underline{- 0} \\
 21 \\
 \underline{- 18} \\
 37 \\
 \underline{- 36} \\
 14 \\
 \underline{- 0} \\
 144 \\
 \underline{- 144} \\
 0
 \end{array}$$

$$217.44 \text{ by } 18 = 12.08$$

3. Given 319.2 by 2.28

$$\begin{array}{r}
 140 \\
 228 \overline{) 31920} \\
 \underline{- 0} \\
 31 \\
 \underline{- 0} \\
 319 \\
 \underline{- 228} \\
 912 \\
 \underline{- 912} \\
 00 \\
 \underline{- 0} \\
 0
 \end{array}$$

$$319.2 \text{ by } 2.28 = 140$$

(iv) Given 40.32 by 9.6

$$\begin{array}{r}
 004.2 \\
 96 \overline{)403.2} \\
 \underline{-0} \\
 40 \\
 \underline{-0} \\
 403 \\
 \underline{-384} \\
 192 \\
 \underline{-192} \\
 0
 \end{array}$$

$$40.32 \text{ by } 9.6 = 4.2$$

(v) Given 0.765 by 0.9

$$\begin{array}{r}
 0.85 \\
 9 \overline{)7.65} \\
 \underline{-0} \\
 76 \\
 \underline{-72} \\
 45 \\
 \underline{-45} \\
 0
 \end{array}$$

$$0.765 \text{ by } 0.9 = 0.85$$

(vi) Given 0.768 by 1.6

$$\begin{array}{r}
 0.48 \\
 16 \overline{) 7.68} \\
 \underline{- 0} \\
 76 \\
 \underline{- 64} \\
 128 \\
 \underline{- 128} \\
 0
 \end{array}$$

$0.768 \text{ by } 1.6 = 0.48$

5. Divide:

(i) 16.64 by 20

(ii) 0.192 by 12

(iii) 163.44 by 24

(iv) 403.2 by 96

(v) 16.344 by 12

(vi) 31.92 by 228

Solution:

(i) Given 16.64 by 20

$$\begin{array}{r}
 0.832 \\
 20 \overline{) 16.640} \\
 \underline{- 0} \\
 16 \\
 \underline{- 0} \\
 166 \\
 \underline{- 160} \\
 64 \\
 \underline{- 60} \\
 40 \\
 \underline{- 40} \\
 0
 \end{array}$$

$$16.64 \text{ by } 20 = 0.832$$

(ii) Given 0.192 by 12

$$\begin{array}{r}
 0.016 \\
 12 \overline{) 0.192} \\
 \underline{- 0} \\
 01 \\
 \underline{- 0} \\
 19 \\
 \underline{- 12} \\
 72 \\
 \underline{- 72} \\
 0
 \end{array}$$

$$0.192 \text{ by } 12 = 0.016$$

(iii) Given 163.44 by 24

$$\begin{array}{r}
 006.81 \\
 24 \overline{) 163.44} \\
 \underline{- 0} \\
 16 \\
 \underline{- 0} \\
 163 \\
 \underline{- 144} \\
 194 \\
 \underline{- 192} \\
 24 \\
 \underline{- 24} \\
 0
 \end{array}$$

$$163.44 \text{ by } 24 = 6.81$$

(iv) Given 403.2 by 96

$$\begin{array}{r}
 004.2 \\
 96 \overline{)403.2} \\
 \underline{-0} \\
 40 \\
 \underline{-0} \\
 403 \\
 \underline{-384} \\
 192 \\
 \underline{-192} \\
 0
 \end{array}$$

403.2 by 96 = 4.2

(v) Given 16.344 by 12

$$\begin{array}{r}
 01.362 \\
 12 \overline{)16.344} \\
 \underline{-0} \\
 16 \\
 \underline{-12} \\
 43 \\
 \underline{-36} \\
 74 \\
 \underline{-72} \\
 24 \\
 \underline{-24} \\
 0
 \end{array}$$

16.344 by 12 = 1.362

(vi) Given 31.92 by 228

$$\begin{array}{r}
 00.14 \\
 228 \overline{) 31.92} \\
 \underline{- 0} \\
 31 \\
 \underline{- 0} \\
 319 \\
 \underline{- 228} \\
 912 \\
 \underline{- 912} \\
 0
 \end{array}$$

31.92 by 228 = 0.14

6. Divide:

(i) 15.68 by 20

(ii) 164.6 by 200

(iii) 403.80 by 30

Solution:

(i) Given 15.68 by 20

$$\begin{array}{r}
 00.784 \\
 20 \overline{) 15.680} \\
 \underline{- 0} \\
 15 \\
 \underline{- 0} \\
 156 \\
 \underline{- 140} \\
 168 \\
 \underline{- 160} \\
 80 \\
 \underline{- 80} \\
 0
 \end{array}$$

$15.68 \text{ by } 20 = 0.784$

(ii) Given $164.6 \text{ by } 200$

$$\begin{array}{r}
 \overline{) 000.823} \\
 \overline{) 164.600} \\
 \underline{- 0} \\
 16 \\
 \underline{- 0} \\
 164 \\
 \underline{- 0} \\
 1646 \\
 \underline{- 1600} \\
 460 \\
 \underline{- 400} \\
 600 \\
 \underline{- 600} \\
 0
 \end{array}$$

$164.6 \text{ by } 200 = 0.823$

(iii) Given $403.80 \text{ by } 30$

$$\begin{array}{r}
 \overline{) 013.46} \\
 \overline{) 403.80} \\
 \underline{- 0} \\
 40 \\
 \underline{- 30} \\
 103 \\
 \underline{- 90} \\
 138 \\
 \underline{- 120} \\
 180 \\
 \underline{- 180} \\
 0
 \end{array}$$

$$403.80 \text{ by } 30 = 13.46$$

7. Divide:

(i) 76 by 0.019

(ii) 88 by 0.08

(iii) 148 by 0.074

(iv) 7 by 0.014

Solution:

(i) Given 76 by 0.019

Multiply both numerator and denominator by 1000 then divide
= $76000/19$

$$\begin{array}{r}
 04000 \\
 19 \overline{) 76000} \\
 \underline{- 0} \\
 76 \\
 \underline{- 76} \\
 00 \\
 \underline{- 0} \\
 00 \\
 \underline{- 0} \\
 00 \\
 \underline{- 0} \\
 0
 \end{array}$$

$$76 \text{ by } 0.019 = 4000$$

(ii) Given 88 by 0.08

Multiply both numerator and denominator by 100 then divide
= $8800/8$

$$\begin{array}{r}
 1100 \\
 8 \overline{) 8800} \\
 \underline{- 8} \\
 08 \\
 \underline{- 8} \\
 00 \\
 \underline{- 0} \\
 00 \\
 \underline{- 0} \\
 0
 \end{array}$$

$88 \text{ by } 0.08 = 1100$

(iii) Given 148 by 0.074

Multiply both numerator and denominator by 1000 then divide
= $14800/74$

$$\begin{array}{r}
 002000 \\
 74 \overline{) 148000} \\
 \underline{- 0} \\
 14 \\
 \underline{- 0} \\
 148 \\
 \underline{- 148} \\
 00 \\
 \underline{- 0} \\
 00 \\
 \underline{- 0} \\
 00 \\
 \underline{- 0} \\
 0
 \end{array}$$

$148 \text{ by } 0.074 = 2000$

(iv) Given 7 by 0.014

Multiply both numerator and denominator by 1000 then divide
 = $7000/14$

$$\begin{array}{r}
 \overline{) 7000} \\
 \underline{0} \\
 70 \\
 \underline{70} \\
 00 \\
 \underline{0} \\
 00 \\
 \underline{0} \\
 00 \\
 \underline{0} \\
 0
 \end{array}$$

7 by 0.014 = 500

8. Divide:

(i) 20 by 50

(ii) 8 by 100

(iii) 72 by 576

(iv) 144 by 15

Solution:

(i) Given 20 by 50

$$\begin{array}{r}
 \overline{) 20.0} \\
 \underline{0} \\
 20 \\
 \underline{20} \\
 00 \\
 \underline{00} \\
 00 \\
 \underline{00} \\
 0
 \end{array}$$

20 by 50 = 0.4

(ii) Given 8 by 100

$$\begin{array}{r}
 0.08 \\
 100 \overline{) 8.00} \\
 \underline{- 0} \\
 80 \\
 \underline{- 0} \\
 800 \\
 \underline{- 800} \\
 0
 \end{array}$$

8 by 100 = 0.08

(iii) Given 72 by 576

$$\begin{array}{r}
 0.125 \\
 576 \overline{) 72.000} \\
 \underline{- 0} \\
 72 \\
 \underline{- 0} \\
 720 \\
 \underline{- 576} \\
 1440 \\
 \underline{- 1152} \\
 2880 \\
 \underline{- 2880} \\
 0
 \end{array}$$

72 by 576 = 0.125

(iv) Given 144 by 15

$$\begin{array}{r}
 009.6 \\
 15 \overline{) 144.0} \\
 \underline{- 0} \\
 14 \\
 \underline{- 0} \\
 144 \\
 \underline{- 135} \\
 90 \\
 \underline{- 90} \\
 0
 \end{array}$$

$$144 \text{ by } 15 = 9.6$$

9. A vehicle covers a distance of 43.2 km in 2.4 litres of petrol. How much distance will travel in 1 litre of petrol?

Solution:

Given distance covered by vehicle in 2.4 litres of petrol is = 43.2 km

Distance travel by vehicle in 1 litre of petrol = $43.2/2.4$

Multiply both numerator and denominator by 10 then we get $432/24$

On dividing

$$\begin{array}{r}
 018 \\
 24 \overline{) 432} \\
 \underline{- 0} \\
 43 \\
 \underline{- 24} \\
 192 \\
 \underline{- 192} \\
 0
 \end{array}$$

Therefore 18km can travel in 1litre of petrol.

10. The total weight of some bags of wheat is 1743 kg. If each bag weighs 49.8 kg, how many bags are there?

Solution:

Given total weight of total bags = 1743 kg

Each bag weighs = 49.8 kg

Number of bags = $1743/49.8$

Multiply both numerator and denominator by 10 then we get $17430/498$

On dividing

$$\begin{array}{r}
 \overline{) 17430} \\
 \underline{- 0} \\
 174 \\
 \underline{- 0} \\
 174 \\
 \underline{- 0} \\
 1743 \\
 \underline{- 1494} \\
 2490 \\
 \underline{- 2490} \\
 0
 \end{array}$$

Therefore number of bags are 35

11. Shikha cuts 50 m of cloth into pieces of 1.25 m each. How many pieces does she get?

Solution:

Given that total length of cloth = 50 m

Length of each piece = 1.25 m

Number of cloth piece = $50/1.25$

Multiply both numerator and denominator by 100 then we get $5000/125$

On dividing

$$\begin{array}{r}
 0040 \\
 125 \overline{)5000} \\
 \underline{-0} \\
 50 \\
 \underline{-0} \\
 500 \\
 \underline{-500} \\
 00 \\
 \underline{-0} \\
 0
 \end{array}$$

Number of cloth piece = 40

12. Each side of a rectangular polygon is 2.5cm in length. The perimeter of the polygon is 12.5 cm. How many sides does the polygon have?

Solution:

Given that length of each side of polygon is = 2.5 cm

Perimeter of polygon = 12.5 cm

Number of sides = $12.5/2.5$

Multiply both numerator and denominator by 10 then we get $125/25$

On dividing

$$\begin{array}{r}
 005 \\
 25 \overline{)125} \\
 \underline{-0} \\
 12 \\
 \underline{-0} \\
 125 \\
 \underline{-125} \\
 0
 \end{array}$$

Number of sides of polygon is 5

13. The product of two decimals is 42.987. If one of them is 12.46, find the other.

Solution:

Given that product of two decimals = 42.987

One of the number is = 12.46

Another number is = $42.987/12.46$

Multiply both numerator and denominator by 1000 then we get $42987/12460$

On dividing

$$\begin{array}{r}
 \\
 1246 \overline{) 4298.70} \\
 \underline{- 0} \\
 42 \\
 \underline{- 0} \\
 429 \\
 \underline{- 0} \\
 4298 \\
 \underline{- 3738} \\
 5607 \\
 \underline{- 4984} \\
 6230 \\
 \underline{- 6230} \\
 0
 \end{array}$$

Another number is 3.45

14. The weight of 34 bags of sugar is 3483.3 kg. If all bags weigh equally, find the weight of each bag.

Solution:

Given that weight of 34 bags of sugar is = 3483.3 kg

Weight of each bag = $3483.3/34$

Multiply both numerator and denominator by 10 then we get $34833/34$

On dividing

$$\begin{array}{r}
 0102.45 \\
 34 \overline{) 3483.30} \\
 \underline{- 0} \\
 34 \\
 \underline{- 34} \\
 08 \\
 \underline{- 0} \\
 83 \\
 \underline{- 68} \\
 153 \\
 \underline{- 136} \\
 170 \\
 \underline{- 170} \\
 0
 \end{array}$$

Weight of each bag = 102.45 kg

15. How many buckets of equal capacity can be filled from 586.5 litres of water, if each has capacity of 8.5 litres?

Solution:

Given that capacity of each bucket = 8.5 litres

Total water available = 586.5 litres

Number of buckets = $586.5/8.5$

Multiply both numerator and denominator by 10 then we get $5865/85$

On dividing

