

RD SHARMA

Solutions

Class 7 Maths

Chapter 3

Ex 3.3

Q1. Divide:

(i) 142.45 by 10

Shifting the decimal point by one place to the left

$$\frac{142.45}{10}$$
$$=14.245$$

(ii) 54.25 by 10

Shifting the decimal point by one place to the left

$$\frac{54.25}{10}$$
$$=5.425$$

(iii) 3.45 by 10

Shifting the decimal point by one place to the left

$$\frac{3.45}{10}$$
$$=0.345$$

(iv) 0.57 by 10

Shifting the decimal point by one place to the left

$$\frac{0.57}{10}$$
$$=0.057$$

(v) 0.043 by 10

Shifting the decimal point by one place to the left

$$\frac{0.043}{10}$$
$$=0.0043$$

(vi) 0.004 by 10

Shifting the decimal point by one place to the left

$$\frac{0.004}{10}$$
$$=0.0004$$

Q2. Divide:

(i) 459.5 by 100

Shifting the decimal point by two places to the left

$$\frac{459.5}{100}$$
$$=4.595$$

(ii) 74.3 by 100

Shifting the decimal point by two places to the left

$$\frac{74.3}{100}$$
$$=0.743$$

(iii) 5.8 by 100

Shifting the decimal point by two places to the left

$$\frac{5.8}{100}$$
$$=0.058$$

(iv) 0.7 by 100

Shifting the decimal point by two places to the left

$$\frac{0.7}{100}$$
$$=0.007$$

(v) 0.48 by 100

Shifting the decimal point by two places to the left

$$\frac{0.48}{100} \\ =0.0048$$

(vi) 0.03 by 100

Shifting the decimal point by two places to the left

$$\frac{0.03}{100} \\ =0.0003$$

Q3. Divide:

(i) 235.41 by 1000

Shifting the decimal point by three places to the left

$$\frac{235.41}{1000} \\ =0.23541$$

(ii) 29.5 by 1000

Shifting the decimal point by three places to the left

$$\frac{29.5}{1000} \\ =0.0295$$

(iii) 3.8 by 1000

Shifting the decimal point by three places to the left

$$\frac{3.8}{1000} \\ =0.0038$$

(iv) 0.7 by 1000

Shifting the decimal point by three places to the left

$$\frac{0.7}{1000} \\ =0.007$$

Q4. Divide:

(i) 0.45 by 9

$$= \frac{0.45}{9}$$

$$=0.05$$

(ii) 217.44 by 18

$$= \frac{217.44}{18}$$

$$=12.08$$

(iii) 319.2 by 2.28

$$= \frac{319.2}{2.28}$$

$$= \frac{319.2 \times 100}{2.28 \times 100}$$

$$\begin{array}{r}
 228 \overline{) 31920} \quad (140) \\
 \underline{228} \\
 912 \\
 \underline{912} \\
 0000 \\
 \underline{0000} \\
 0
 \end{array}$$

$$= \frac{3192}{228} = 140$$

(iv) 40.32 by 9.6

$$\begin{aligned}
 &= \frac{40.32}{9.6} \\
 &= \frac{40.32 \times 10}{9.6 \times 10} \\
 &= \frac{403.2}{96}
 \end{aligned}$$

$$\begin{array}{r}
 96 \overline{) 403.2} \quad (4.2) \\
 \underline{384} \\
 192 \\
 \underline{192} \\
 0
 \end{array}$$

$$= 4.2$$

(v) 0.765 by 0.9

$$\begin{aligned}
 &= \frac{0.765}{0.9} \\
 &= \frac{0.765 \times 10}{0.9 \times 10} \\
 &= \frac{7.65}{9}
 \end{aligned}$$

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

$$= 0.85$$

(vi) 0.768 by 1.6

$$\begin{aligned}
 &= \frac{0.768}{1.6} \\
 &= \frac{0.768 \times 10}{1.6 \times 10} \\
 &= \frac{7.68}{16}
 \end{aligned}$$

$$16 \overline{)7.68} \quad (0.48)$$

$$\begin{array}{r} 0 \\ \underline{76} \\ 64 \\ \underline{128} \\ 128 \\ \underline{0} \end{array}$$

$$=0.48$$

Q5. Divide:

(i) 16.64 by 20

$$= \frac{16.64}{20}$$

$$= \frac{16.64}{2 \times 10}$$

$$= \frac{16.64}{10} \times \frac{1}{2}$$

$$= \frac{1.664}{2}$$

$$2 \overline{)1.664} \quad (0.832)$$

$$\begin{array}{r} 0 \\ \underline{16} \\ 16 \\ \underline{6} \\ 6 \\ \underline{4} \\ 4 \\ \underline{0} \end{array}$$

$$=0.832$$

(ii) 0.192 by 12

$$= \frac{0.192}{12}$$

$$12 \overline{)0.192} \quad (0.016)$$

$$\begin{array}{r} 0.000 \\ \underline{19} \\ 12 \\ \underline{72} \\ 72 \\ \underline{0} \end{array}$$

$$=0.016$$

(iii) 163.44 by 24

$$= \frac{0.192}{12}$$

$$\begin{array}{r}
 24 \overline{)163.44} \quad (6.81) \\
 \underline{144} \\
 194 \\
 \underline{192} \\
 24 \\
 \underline{24} \\
 0
 \end{array}$$

$$=6.81$$

(iv) 403.2 by 96

$$= \frac{403.2}{96}$$

$$\begin{array}{r}
 96 \overline{)403.2} \quad (4.2) \\
 \underline{384} \\
 192 \\
 \underline{192} \\
 0
 \end{array}$$

$$=4.2$$

(v) 16.344 by 12

$$= \frac{16.344}{12}$$

$$\begin{array}{r}
 12 \overline{)16.344} \quad (1.362) \\
 \underline{12} \\
 43 \\
 \underline{36} \\
 74 \\
 \underline{72} \\
 24 \\
 \underline{24} \\
 0
 \end{array}$$

$$=1.362$$

(vi) 31.92 by 228

$$= \frac{31.92}{228}$$

$$\begin{array}{r}
 228 \overline{)31.92} \quad (0.14) \\
 \underline{0} \\
 319 \\
 \underline{228} \\
 912 \\
 \underline{912} \\
 0
 \end{array}$$

$$=0.14$$

Q6. Divide:

(i) 15.68 by 20

$$= \frac{15.68}{20}$$

$$= \frac{15.68}{2 \times 10}$$

$$= \frac{15.68}{10} \times \frac{1}{2}$$

$$= \frac{1.568}{2}$$

$$\begin{array}{r} 2 \overline{) 1.568} \quad (0.784) \\ \underline{0} \\ 15 \\ \underline{14} \\ 16 \\ \underline{16} \\ 8 \\ \underline{8} \\ 0 \end{array}$$

$$= 0.784$$

(ii) 164.6 by 200

$$= \frac{164.6}{200}$$

$$= \frac{164.6}{2 \times 100}$$

$$= \frac{164.6}{100} \times \frac{1}{2}$$

$$= \frac{1.646}{2}$$

$$\begin{array}{r} 2 \overline{) 1.646} \quad (0.823) \\ \underline{0} \\ 16 \\ \underline{16} \\ 4 \\ \underline{4} \\ 6 \\ \underline{6} \\ 0 \end{array}$$

$$= 0.823$$

(iii) 403.80 by 30

$$= \frac{403.80}{30}$$

$$= \frac{403.80}{3 \times 10}$$

$$= \frac{403.80}{10} \times \frac{1}{3}$$

$$= \frac{40.380}{3}$$

$$\begin{array}{r} 3 \overline{) 40.380} \quad (13.46) \\ \underline{39} \\ 13 \\ \underline{12} \\ 18 \\ \underline{18} \\ 0 \end{array}$$

$$= 13.46$$

Q7. Divide:

(i) 76 by 0.019

$$\begin{aligned} &= \frac{76}{0.019} \\ &= \frac{76 \times 1000}{0.019 \times 1000} \\ &= \frac{76000}{19} \end{aligned}$$

```
19) 76000 (4000
   76
   ---
   0000
   0000
   ---
   0
```

=4000

(ii) 88 by 0.08

$$\begin{aligned} &= \frac{88}{0.08} \\ &= \frac{88 \times 100}{0.08 \times 100} \\ &= \frac{8800}{8} \end{aligned}$$

```
8) 8800 (1100
   8
   ---
   08
   8
   ---
   00
   00
   ---
   0
```

=1100

(iii) 148 by 0.074

$$\begin{aligned} &= \frac{148}{0.074} \\ &= \frac{148 \times 1000}{0.074 \times 1000} \\ &= \frac{148000}{74} \end{aligned}$$

```
74) 148000 (2000
   148
   ---
   0000
   0000
   ---
   0
```

=2000

(iv) 7 by 0.014

$$\begin{aligned} &= \frac{7}{0.014} \\ &= \frac{7 \times 1000}{0.014 \times 1000} \end{aligned}$$

$$\begin{array}{r} 14 \overline{) 7000} \quad (500 \\ \underline{70} \\ 000 \\ \underline{000} \\ 0 \end{array}$$

$$= \frac{7000}{14}$$

Q8. Divide:

(i) 20 by 50

$$= \frac{20}{50}$$

$$\begin{array}{r} 50 \overline{) 20} \quad (0.4 \\ \underline{0} \\ 200 \\ \underline{200} \\ 0 \end{array}$$

(ii) 8 by 100

$$= \frac{8}{100}$$

By shifting the decimal point to the left

$$= \frac{8}{100}$$

$$= 0.08$$

(iii) 72 by 576

$$= \frac{72}{576}$$

$$= 0.125$$

(iv) 144 by 15

$$= \frac{144}{15}$$

$$\begin{array}{r} 15 \overline{) 144} \quad (9.6 \\ \underline{135} \\ 90 \\ \underline{90} \\ 0 \end{array}$$

$$= 9.6$$

Q9. A vehicle covers a distance of 43.2 km in 2.4 litres of petrol. How much distance will it travel in 1 litre of petrol?

Distance covered in 2.4 litres of petrol = 43.2 km

Distance covered in 1 litre of petrol = $\frac{43.2}{2.4}$

$$= 18 \text{ km}$$

The distance travelled in 1 litre of petrol is 18 km

Q10. The total weight of some bags of wheat is 1743 kg. If each bag weighs 49.8 kg, how many bags are there?

Total weight of bags of wheat = 1743 kg

Each bag weight=49.8kg

$$\text{No of bags} = \frac{1743}{49.8}$$

$$= \frac{1743 \times 10}{49.8 \times 10}$$

$$= \frac{17430}{498}$$

$$= 34$$

Therefore the total numbers of bags are 35

Q11. Shikha cuts 50 m of cloth into pieces of 1.25 m each. How many pieces does she get?

Total length of cloth= 50m

Length of each piece of cloth=1.25m

$$\text{Number of pieces} = \frac{50}{1.25}$$

$$= \frac{50 \times 100}{1.25 \times 100}$$

$$= \frac{5000}{125}$$

$$= 40 \text{ pieces}$$

Therefore Shikha got 40 pieces

Q12. Each side of a rectangular polygon is 2.5 cm in length. The perimeter of the polygon is 12.5 cm. How many sides does the polygon have?

Length of each side of rectangular polygon=2.5cm

Perimeter of polygon=12.5cm

No of sides polygon has=12.5cm

$$\text{No of sides polygon have} = \frac{12.5}{2.5}$$

$$= \frac{12.5 \times 10}{2.5 \times 10}$$

$$= 5$$

Therefore the sides of the polygon is 5

Q13. The product of two decimals is 42.987. If one of them is 12.46, find the other.

We have,

The product of the given decimals=42.987

one decimal=12.46

$$\text{The other decimal} = \frac{42.987}{12.46}$$

$$= 3.45$$

The number is 3.45

Q14. The weight of 34 bags of sugar is 3483.3 kg. If all bags weigh equally, find the weight of each bag.

Total weight of sugar= 3483.3kg

No of bags= 34

$$\text{Weight of each bag} = \frac{3483.3}{34}$$

$$= 102.45 \text{kg}$$

Therefore weight of each bag is 102.45kg

Q15. How many buckets of equal capacity can be filled from 586.5 litres of water, if each bucket has capacity of 8.5 litres?

Capacity of each bucket=805 litres

Total water available=586.5litres

$$\text{Number of buckets} = \frac{805}{586.5}$$

$$= \frac{805 \times 10}{586.5 \times 10}$$

$$= 69$$

Total number of buckets is 69