

EXERCISE 15(C)

1. Multiply:

- (i) **5.6 and 8**
- (ii) **38.46 and 9**
- (iii) **0.943 and 62**
- (iv) **0.0453 and 35**
- (v) **7.5 and 2.5**

Solution:

- (i) 5.6 and 8

The multiplication of 5.6 and 8 is as follows

$$5.6 \times 8 = 44.8$$

Hence, $5.6 \times 8 = 44.8$

- (ii) 38.46 and 9

The multiplication of 38.46 and 9 is as follows

$$38.46 \times 9 = 346.14$$

Hence, $38.46 \times 9 = 346.14$

- (iii) 0.943 and 62

The multiplication of 0.943 and 62 is as follows

$$\begin{array}{r} 943 \\ \times 62 \\ \hline \end{array}$$

$$\begin{array}{r} 1886 \\ 5658 \\ \hline \end{array}$$

$$\begin{array}{r} 58466 \\ \hline \end{array}$$

We know that,

$$.943 \times 62 = 58.466$$

Hence $0.943 \times 62 = 58.466$

- (iv) 0.0453 and 35

The multiplication of 0.0453 and 35 is as follows

$$\begin{array}{r} 453 \\ \times 35 \\ \hline \end{array}$$

$$\begin{array}{r} 2265 \\ 1359 \\ \hline \end{array}$$

$$\begin{array}{r} 15855 \\ \hline \end{array}$$

We know that,

$$453 \times 35 = 15855$$

$$\text{Hence } 0.0453 \times 35 = 1.5855$$

(v) 7.5 and 2.5

The multiplication of 7.5 and 2.5 is as follows

$$\begin{array}{r} 75 \\ 25 \times \\ \hline \end{array}$$

$$\begin{array}{r} 375 \\ 150 \times \\ \hline \end{array}$$

$$\begin{array}{r} 1875 \\ \hline \end{array}$$

We know that,

$$75 \times 25 = 1875$$

$$\text{Hence } 7.5 \times 2.5 = 18.75$$

2. Evaluate:

(i) 0.0008×26

(ii) 0.038×95

(iii) $1.2 \times 2.4 \times 3.6$

(iv) $0.9 \times 1.8 \times 0.27$

(v) $1.5 \times 1.5 \times 1.5$

Solution:

(i) 0.0008×26

Since,

$$8 \times 26 = 208$$

$$0.0008 \times 26 = 0.0208$$

\therefore We get 0.0208 on multiplying 0.0008×26

(ii) 0.038×95

$$\begin{array}{r} 38 \\ 95 \times \\ \hline \end{array}$$

$$\begin{array}{r} 190 \\ 342 \times \\ \hline \end{array}$$

$$\begin{array}{r} 3610 \\ \hline \end{array}$$

Since,

$$38 \times 95 = 3610$$

$$.038 \times 95 = 3.610$$

$$= 3.61$$

\therefore We get 3.61 on multiplying 0.038×95

$$(iii) 1.2 \times 2.4 \times 3.6$$

$$\begin{array}{r} 12 \\ \times 24 \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ 24 \times \\ \hline \end{array}$$

$$\begin{array}{r} 288 \\ 36 \times \\ \hline \end{array}$$

$$\begin{array}{r} 1728 \\ 864 \times \\ \hline \end{array}$$

$$\begin{array}{r} 10368 \\ \hline \end{array}$$

Since,

$$12 \times 24 \times 36 = 10368$$

$$1.2 \times 2.4 \times 3.6 = 10.368$$

\therefore We get 10.368 on multiplying $1.2 \times 2.4 \times 3.6$

$$(iv) 0.9 \times 1.8 \times 0.27$$

$$\begin{array}{r} 9 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ 9 \times \\ \hline \end{array}$$

$$\begin{array}{r} 162 \\ 27 \times \\ \hline \end{array}$$

$$\begin{array}{r} 1134 \\ 324 \times \\ \hline \end{array}$$

$$\begin{array}{r} 4374 \\ \hline \end{array}$$

Since,

$$9 \times 18 \times 27 = 4374$$

$$0.9 \times 1.8 \times 0.27 = 0.4374$$

∴ We get 0.4374 on multiplying $0.9 \times 1.8 \times 0.27$

$$(v) 1.5 \times 1.5 \times 1.5$$

15

15 ×

75

15 ×

225

15 ×

1125

225 ×

3375

Since,

$$15 \times 15 \times 15 = 3375$$

$$1.5 \times 1.5 \times 1.5 = 3.375$$

3. Multiply each of the following numbers by 10, 100 and 1000:

- (i) 3.9
- (ii) 2.89
- (iii) 0.0829
- (iv) 40.3
- (v) 0.3725

Solution:

(i) 3.9

$$3.9 \times 10 = 39$$

$$3.9 \times 100 = 390$$

$$3.9 \times 1000 = 3900$$

Hence, 39, 390 and 3900 are the required numbers

(ii) 2.89

$$2.89 \times 10 = 28.9$$

$$2.89 \times 100 = 289$$

$$2.89 \times 1000 = 2890.00$$

$$= 2890$$

Hence, 28.9, 289 and 2890 are the required numbers

(iii) 0.0829

$$0.0829 \times 10 = 0.829$$

$$0.0829 \times 100 = 8.29$$

$$0.0829 \times 1000 = 82.9$$

Hence, 0.829, 8.29 and 82.9 are the required numbers

(iv) 40.3

$$40.3 \times 10 = 403$$

$$40.3 \times 100 = 4030$$

$$40.3 \times 1000 = 40300$$

Hence, 403, 4030 and 40300 are the required numbers

(v) 0.3725

$$0.3725 \times 10 = 3.725$$

$$0.3725 \times 100 = 37.25$$

$$0.3725 \times 1000 = 372.5$$

4. Evaluate:

(i) $8.64 \div 8$

(ii) $0.0072 \div 6$

(iii) $20.64 \div 16$

(iv) $1.602 \div 15$

(v) $13.08 \div 4$

Solution:

(i) $8.64 \div 8$

$$8.64 \div 8 = 8.64 / 8$$

We get

$$= 1.08$$

Therefore, the value of $8.64 \div 8 = 1.08$

(ii) $0.0072 \div 6$

$$0.0072 \div 6 = (0.0072) / 6$$

We get

$$= 0.0012$$

Therefore, the value of $0.0072 \div 6 = 0.0012$

(iii) $20.64 \div 16$

$$20.64 \div 16 = (20.64) / 16$$

We get

$$= 1.29$$

Therefore, the value of $20.64 \div 16 = 1.29$

(iv) $1.602 \div 15$

$$1.602 \div 15 = (1.602) / 15$$

We get

$$1602 / (1000 \times 15)$$

We get

$$= 106.8 / 1000$$

$$= 0.1068$$

Therefore, the value of $1.602 \div 15 = 0.1068$

$$(v) 13.08 \div 4$$

$$13.08 \div 4 = 13.08 / 4$$

We get

$$= 3.27$$

Therefore, the value of $13.08 \div 4 = 3.27$

5. Divide each of the following numbers by 10, 100 and 1000:

$$(i) 49.79$$

$$(ii) 0.923$$

$$(iii) 0.0704$$

Solution:

$$(i) 49.79$$

$$49.79 / 10 = 4.979$$

$$49.79 / 100 = 0.4979$$

$$49.79 / 1000 = 0.04979$$

Therefore, the required numbers are 4.979, 0.4979 and 0.04979

$$(ii) 0.923$$

$$0.923 / 10 = 0.0923$$

$$0.923 / 100 = 0.00923$$

$$0.923 / 1000 = 0.000923$$

Therefore, the required numbers are 0.0923, 0.00923 and 0.000923

$$(iii) 0.0704$$

$$0.0704 / 10 = 0.00704$$

$$0.0704 / 100 = 0.000704$$

$$0.0704 / 1000 = 0.0000704$$

Therefore, the required numbers are 0.00704, 0.000704 and 0.0000704

6. Evaluate:

$$(i) 9.4 \div 0.47$$

$$(ii) 6.3 \div 0.09$$

$$(iii) 2.88 \div 1.2$$

$$(iv) 8.64 \div 1.6$$

(v) $37.188 \div 3.6$

Solutions:

$$(i) 9.4 \div 0.47$$

$$= 9.4 / 0.47$$

$$= (94 \times 100) / (47 \times 10)$$

On calculating further, we get

$$= 2 \times 10$$

$$= 20$$

Hence, $9.4 \div 0.47 = 20$

$$(ii) 6.3 \div 0.09$$

$$= 6.3 / 0.09$$

$$= (63 \times 100) / (9 \times 10)$$

We get

$$= 6300 / 90$$

$$= 630 / 9$$

$$= 70$$

Hence, $6.3 \div 0.09 = 70$

$$(iii) 2.88 \div 1.2$$

$$= 2.88 / 1.2$$

$$= (288 \times 10) / (12 \times 100)$$

We get,

$$= 2880 / 1200$$

$$= 288 / 120$$

$$= 2.4$$

Hence, $2.88 \div 1.2 = 2.4$

$$(iv) 8.64 \div 1.6$$

$$= 8.64 / 1.6$$

$$= (8.64 \times 10) / (1.6 \times 10)$$

We get,

$$= 86.4 / 16$$

$$= 5.4$$

Hence, $8.64 \div 1.6 = 5.4$

$$(v) 37.188 \div 3.6$$

$$= 37.188 / 3.6$$

$$= (37188 \times 10) / (36 \times 1000)$$

We get,

$$= 371880 / 36000$$

$$= 2066 / 200$$

$$= 1033 / 100$$

$$= 10.33$$

7. Fill in the blanks with 10, 100, 1000, or 10000 etc:

- (i) $7.85 \times \dots = 78.5$
- (ii) $0.442 \times \dots = 442$
- (iii) $0.0924 \times \dots = 9.24$
- (iv) $0.00187 \times \dots = 18.7$
- (v) $2.6 \times \dots = 2600$

Solution:

- (i) $7.85 \times \underline{10} = 78.5$
- (ii) $0.442 \times \underline{1000} = 442$
- (iii) $0.0924 \times \underline{100} = 9.24$
- (iv) $0.00187 \times \underline{10000} = 18.7$
- (v) $2.6 \times \underline{1000} = 2600$

8. Evaluate:

- (i) $9.32 - 28.54 \div 10$
- (ii) $0.234 \times 10 + 62.8$
- (iii) $3.06 \times 100 - 889.4 \div 100$
- (iv) $2.86 \times 7.5 + 45.4 \div 0.2$
- (v) $97.82 \times 0.03 - 0.54 \div 0.3$

Solution:

$$(i) 9.32 - 28.54 \div 10$$

$$= 9.32 - 2.854$$

So, we get

$$= 9.320 - 2.854$$

$$= 6.466$$

Therefore, $9.32 - 28.54 \div 10 = 6.466$

$$(ii) 0.234 \times 10 + 62.8$$

Using BODMAS, we get

$$= 2.34 + 62.80$$

$$= 65.14$$

Therefore, $0.234 \times 10 + 62.8 = 65.14$

$$(iii) 3.06 \times 100 - 889.4 \div 100$$

Using BODMAS, we get

$$= 3.06 \times 100 - 8.894$$

$$= 306 - 8.894$$

$$= 306.000 - 8.894$$

$$= 297.106$$

$$(iv) 2.86 \times 7.5 + 45.4 \div 0.2$$

Using BODMAS, we get

$$= 2.86 \times 7.5 + 454 \div 2$$

On further calculation, we get

$$= 2.86 \times 7.5 + 227.00$$

$$= (286 / 100) \times (75 / 10) + 227.00$$

$$= (286 / 4) \times (3 / 10) + 227.00$$

$$= (143 / 2) \times (3 / 10) + 227.00$$

We get,

$$= 429 / 20 + 227.00$$

$$= 21.45 + 227.00$$

$$= 248.45$$

$$(v) 97.82 \times 0.03 - 0.54 \div 0.3$$

$$= 97.82 \times 0.03 - 0.54 / 0.3$$

$$= 97.82 \times 0.03 - (0.54 \times 10) / (0.3 \times 10)$$

On further calculation, we get

$$= 2.9346 - 5.4 / 3$$

$$= 2.9346 - 1.8$$

$$= 2.9346 - 1.8000$$

We get,

$$= 1.1346$$