Fractions and Decimals: Exercise 2.6

Q.1 Find:

(i) 0.2 × 6 **(ii) 8 × 4.6** **(iii) 2.71 × 5** **(iv) 20.1 × 4**

(v) 0.05 × 7 **(vi) 211.02 × 4** **(vii) 2 × 0.86**

Sol:

(i) Given: 0.2 × 6 = (2/10) x 6

= (2x6)/10

= 12/10

Now, we put the decimal before the ones digit.

= 1.2

(ii) Given: 8 × 4.6 = 8 x (46/10)

= (8x46)/10

= 368/10

Now, we put the decimal before the ones digit.

= 36.8

(iii) Given: 2.71 × 5 = (271/100) x 5

= (271x5)/100

= 1355/100

Now, we put the decimal before the tens digit.

= 13.55

(iv) Given: 20.1 × 4 = (201/10) x 4

= (201 x 4)/10

= 804/10

Now, we put the decimal before the ones digit.

= 80.4

(v) Given: 0.05 × 7 = (5/100) x 7

= (5x7)/100

= 35/100

Now, we put the decimal before the tens digit.

= 0.35

(vi) Given: 211.02 × 4 = (21102/100) x 4

= (21102 x 4)/100

= 84408/100

Now, we put the decimal before the tens digit.

= 844.08

(vii) Given: 2 × 0.86 = 2 x (86/100)

= (2x86)/100

= 172/100

Now, we put the decimal before the tens digit.

= 1.72

Q.2 Find the area of rectangle whose length is 5.7cm and breadth is 3 cm.

Sol: Dimension of a rectangle, length =5.7 cm and breadth =3 cm

Thus, area of the rectangle = length × Breadth

= 5.7 × 3

= (57/10) x 3

= (57 x 3)/10

= 171/10

= 17.1 cm^2

Q.3 Find:

(i) 1.3 × 10 **(ii) 36.8 × 10** **(iii) 153.7 × 10** **(iv) 168.07 × 10**

(v) 31.1 × 100 **(vi) 156.1 × 100** **(vii) 3.62 × 100** **(viii) 43.07 × 100**

(ix) 0.5 × 10 **(x) 0.08 × 10** **(xi) 0.9 × 100** **(xii) 0.03 × 1000**

Sol:

(i) Given: 1.3 × 10 = (13/10) x 10

= 13

(ii) Given: 36.8 × 10 = (368/10) x 10

= 368

(iii) Given: 153.7 × 10 = (1537/10) x 10

= 1537

(iv) Given: 168.07 × 10 = (16807/100) x 10

= 16807/10

= 1680.7

(v) Given: 31.1 × 100 = (311/10) x 100

= 311 x 10

= 3110

(vi) Given: 156.1 × 100 = (1561/10) x 100

= 1561 x 10

= 15610

(vii) Given: 3.62 × 100 = (362/100) x 100

= 362

(viii) Given: 43.07 × 100 = (4307/100) x 100

= 4307

(ix) Given: 0.5 × 10 = (5/10) x10

= 5

(x) Given: 0.08 × 10 = (8/100) x 10

= 8/10

= 0.8

(xi) Given: 0.9 × 100 = (9/10) x100

= 9 x 10

= 90

(xii) Given: 0.03 × 1000 = (3/100) x 1000

= 3 x10

= 30

Q.4 A two-wheeler covers a distance of 55.3 km in one litre of petrol. How much distance will it cover in 10 litres of petrol?

Sol: **Given:** Distance covered by two-wheeler in 1litre of petrol = 55.3 km

So, distance covered in 10litre of petrol will be = (10 × 55.3)

= 10 x (553/10)

= 553 km

Thus, covered distance by Two-wheeler in 10litre of petrol = 553 km

Q.5 Find:

(i) 2.5 × 0.3 **(ii) 0.1 × 51.7** **(iii) 0.2 × 316.8** **(iv) 1.3 × 3.1**

(v) 0.5 × 0.05 **(vi) 11.2 × 0.15** **(vii) 1.07 × 0.02** **(viii) 10.05 × 1.05**

(ix) 101.01 × 0.01 **(x) 100.01 × 1.1**

Sol:

(i) Given: 2.5 × 0.3 = (25/10) x (3/10)

= (25 x3)/ (10 x 10)

= 75/100

Since, here 100 in denominator. So, decimal point is shifted to the left by two places.

= 0.75

(ii) Given: 0.1 × 51.7 = (1/10) x (517/10)

= (1 x 517)/ (10 x 10)

= 517/100

Since, here 100 in denominator. So, decimal point is shifted to the left by two places.

= 5.17

(iii) Given: 0.2 × 316.8 = (2/10) x (3168/10)

= (2x 3168)/(10 x 10)

= 6336/100

Since, here 100 in denominator. So, decimal point is shifted to the left by two places.

= 63.36

(iv) Given: 1.3 × 3.1 = (13/10) x (31/10)

= (13x31)/(10x10)

= 403/100

Since, here 100 in denominator. So, decimal point is shifted to the left by two places.

= 4.03

(v) Given: 0.5 × 0.05 = (5/10) x (5/100)

= (5x5)/1000

= 25/1000

Since, here 1000 in denominator. So, decimal point is shifted to the left by three places.

= 0.025

(vi) Given: 11.2 × 0.15 = (112/10) x (15/100)

= (112x15)/(10x100)

= 1680/1000

Since, here 1000 in denominator. So, decimal point is shifted to the left by three places.

= 1.680

(vii) Given: 1.07 × 0.02 = (107/100) x (2/100)

= (107x2)/(100x100)

= 214/10000

Since, here 10000 in denominator. So, decimal point is shifted to the left by four places.

= 0.0214

(viii) Given: 10.05 × 1.05 = (1005/100) x (105/100)
= (1005 x 105)/(100x100)
= (105525/10000)
Since, here 10000 in denominator. So, decimal point is shifted to the left by four places.
= 10.5525

(ix) Given: 101.01 × 0.01 = (10101/100) x (1/100)
= (10101x1)/(100x100)
= 10101/10000
Since, here 10000 in denominator. So, decimal point is shifted to the left by four places.
= 1.0101

(x) Given: 100.01 × 1.1 = (10001/100) x (11/10)
= (10001x11)/(100x10)
= (110011)/1000
Since, here 1000 in denominator. So, decimal point is shifted to the left by three places.
= 110.011