Decimal Fractions

Lecture sheet – 10

Short Question

1. The weight of 1.8 m long iron pipe is 9 kg. What is the weight of 1 m long iron pipe?

Ans: 5 m

Rough:

The weight of 1.8 m long iron pipe = 9 kg

The weight of 1m long iron pipe $= \dfrac{9}{1.8} kg$

$$= \dfrac{9 \times 10}{1.8 \times 10} kg$$

$$= \dfrac{90}{18} kg$$

$$= 5 \text{ kg}$$

2. $2 \div 0.5 = ?$

Ans: 4

Rough: $\dfrac{2}{0.5} = \dfrac{2 \times 10}{0.5 \times 10} = \dfrac{20}{5} = 4$

3. $2.4 \div 4 = ?$

Ans: 0.6

Rough:

$$
\begin{array}{r}
0.6 \\
4\,)\,\overline{2.4} \\
0 \\
\hline
2\,4 \\
2\,4 \\
\hline
0 \\
\end{array}
$$

4. How much money is needed if 10 persons are given 2.5 taka each?
Ans: 25 taka

> *Rough:* 1 Person get 2.5 tk
> 10 Persons get (2.5 × 10) tk
> = 25 tk

5. Reza brought a pen for 5.5 taka and exercise book 10.5 taka. How much taka did he spent total?
Ans: 16 tk

> *Rough:*   pen = 5.5 taka
> Exercise book = 10.5 taka
> Total   = 16.0 taka

6. $0.001 \times 100 = ?$
Ans: 0.1

> *Note:* If we multiply any decimal number by 10, 100, ….. etc, the decimal point moves to right as many as the number of zeros.

7. $0.1 \times 0.01 \times 0.001 = ?$
Ans: 0.000001

> *Rough:*
>
> ```
>     0.1            0.0 0 1
>  ×0.0 1          ×0.0 0 1
>  ─────           ─────────
>     0 1             0 0 0 1
>   0 0 0           0 0 0 0 0
>  0 0 0 0         0 0 0 0 0 0
>  ──────         ───────────
>  0.0 0 1        0.0 0 0 0 0 1
> ```

8. $0.1 \times 0.2 \times 0.001 = ?$
Ans: 0.00002

9. 5391 ÷ 100 = ?
Ans: 53.91

Note:
If we multiply any number by 10, 100 …. etc, the decimal point moves to the left as many as the number of zeros.

10. 6.43 × 10 = ?
Ans: 64.3

11. Rini can walk 3.5 km in 1 hour. To walk 7 km, what time is required?
Ans: 2 Hours.

12. If weight of a mango is 0.75 kg. What will be the weight of such 8 mangoes?

Ans: 6 kg

Rough:

Weight of 1 mango	= 0.75 kg		0.7 5
Weight of 8 mangoes	= (0.75 × 8) kg	×	8
	= 6 kg		6.0 0

13. 0.2 = what in fraction?

Ans: $0.2 = \dfrac{1}{5}$

Rough: $\dfrac{0.2}{1} = \dfrac{0.2 \times 10}{1 \times 10} = \dfrac{2}{10} = \dfrac{1}{5}$

14. What will be the product if multiplicand is 2.5 and multiplier is 0.1?

Ans: 0.25

Rough:

$$
\begin{array}{r}
2.5 \\
\times \ \ 0.1 \\
\hline
2\,5 \\
0\,0\,0 \\
\hline
0.2\,5
\end{array}
$$

15. Do subtraction: 18.575 – 15.895

Ans: 2.68

Rough:

$$
\begin{array}{r}
18.575 \\
-\ 15.895 \\
\hline
2.680
\end{array}
$$
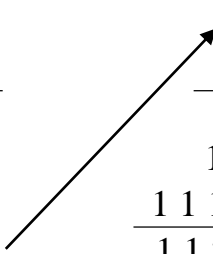
16. 0.23 × 5.37 × 9.12 = ?
Ans: 11.264112

Rough:

```
    0.2 3              1.2 3 5 1
  × 5.3 7                × 9.1 2
  ─────────            ───────────
    1 6 1              2 4 7 0 2
  0 6 9 ×              1 2 3 5 1 ×
  1 1 5 × ×            1 1 1 1 5 9 × ×
  ─────────            ───────────
  1.2 3 5 1            1 1.2 6 4 1 1 2
```

17. 0.3 × 0.03 × 0.003 = ?
Ans: 0.000027

18. 0.5 × 0.03 × 0.02 =?
Ans: 0.0003

19. The price of four oranges is 36.20 tk. What is the price of one orange?
Ans: 9.05 tk

Rough:

```
        9.05
   4) 36.20
      36
     ─────
       2
       0
     ─────
      20
      20
     ─────
       0
```

20. If 1m is equal 3.24 feet, 8 m is how many feet?
Ans: 25.92 feet.

Rough:

$$\begin{array}{r} 3.2\,4 \\ \times \qquad 8 \\ \hline 2\,5.9\,2 \end{array}$$

Exercise (Do yourself)

1. $8.947 \times 100 =$?
2. $0.2 \times 2.2 \times 2.22 =$?
3. Price of a pen is 20.25 tk. How much will 8 pens cost?
4. What will be the product if 0.5 is multiplied by 12?
5. $22.5 \div 15 =$?
6. $0.07 \div 10 =$?
7. What is the value if 15 divided by 0.04?
8. If the price of 3.5 kg potato is 70 taka, what is the price of 1 kg potato?
9. $220 \div 12.5 =$?
10. $0.2 \times 0.2 =$?

Solution

1. 894.7
2. 0.9768
3. 162tk
4. 6
5. 1.5
6. 0.007
7. 375
8. 20 tk
9. 17.6
10. 0.04