

Decimal Fractions

Lecture sheet – 6

Multiplication by decimal

- Multiply 30×1.2

$$\begin{array}{r} 30 \\ \times 1.2 \\ \hline 60 \\ 300 \\ \hline 360 \end{array}$$



$$\begin{array}{r} 30 \\ \times 1.2 \\ \hline 60 \\ 300 \\ \hline 36.0 \end{array}$$

Multiply Numbers without thinking the decimal point

Put a decimal point at the same place in the multiplier

1.Exercise:

- 1) 30×1.2 2) 4×1.3 3) 35×2.4 4) 50×0.7 5) 8×0.6 6) 25×0.4

- *Let's discuss how to calculate the multiplication by decimal.*

* 0.2×0.16

$$\begin{array}{r} 0.2 \\ \times 0.16 \\ \hline 012 \\ 020 \\ \hline 0000 \\ 0032 \end{array}$$



$$\begin{array}{r} 0.2 \\ \times 0.16 \\ \hline 012 \\ 020 \\ \hline 0000 \\ 0.032 \end{array}$$

Digits after the decimal point

1 digit

2digits

3 digits

Sum

Multiply numbers without thinking the decimal point

0.032
(it has 3 digits after the decimal point)

• 2.8×1.75

$$\begin{array}{r} 2.8 \\ \times 1.75 \\ \hline 140 \\ 1960 \\ 2800 \\ \hline 4900 \end{array}$$

Multiply numbers without thinking the decimal point

$$\begin{array}{r} 2.8 \\ \times 1.75 \\ \hline 140 \\ 1960 \\ 2800 \\ \hline 4.9\cancel{0}\cancel{0} \end{array}$$

4.9
(it has 3 digits after the decimal point. It is unnecessary to write 0 after decimal point)

Digits after the decimal point

1 digit

2 digits

3 digits

Sum

2. Exercise:

Multiply vertically:

1. 3.2×1.24
2. 4.37×6.8
3. 0.35×2.9
4. 4.1×0.73
5. 3.68×0.15
6. 0.74×2.5
7. 0.32×0.4
8. 0.6×0.13
9. 0.25×0.8
10. 29×4.73
11. 18×0.65
12. 26×0.415
13. 16×3.14

Solution

1.

1) 36 2) 5.2 3) 84 4) 35 5) 4.8 6) 10

2.

1) 3.968 2) 29.716 3) 1.015 4) 2.993 5) 0.552 6) 1.85 7) 0.128 8) 0.078 9) 0.2

10) 137.17 11) 11.7 12) 10.79 13) 50.24