

MULTIPLICATION BY ONE-DIGIT NUMBER (WITHOUT CARRYING)

EXAMPLE: Multiply 30 by 2

Solution: Step 1:

T	O
3	0
×	2
	0

Multiply the ones

$$0 \times 2 = 0$$

$$\text{Hence } 30 \times 2 = 60$$

$$\begin{aligned} 30 \times 2 &= (3 \text{ tens} + 0 \text{ ones}) \times 2 \\ &= 3 \text{ tens} \times 2 + 0 \text{ ones} \times 2 \\ &= 6 \text{ tens} + 0 \text{ ones} \\ &= 60 \end{aligned}$$

Step 2:

T	O
3	0
×	2
6	0

Multiply the tens

$$3 \times 2 = 6 \text{ tens}$$

Try these

Multiply

(a)

T	O
2	0
×	0
0	0

(b)

T	O
2	0
×	2
4	0

(c)

T	O
2	0
×	4
8	0

(d)

T	O
3	0
×	3
9	0

(e)

T	O
5	0
×	1
5	0

(f)

T	O
3	0
×	1
3	0

(g)

T	O
1	0
×	9
9	0

(h)

T	O
2	0
×	3
6	0

Exercise 5.5

1. Multiply

$$\begin{array}{r} \text{(a)} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 4 \quad 1 \\ \times \quad 2 \\ \hline 8 \quad 2 \end{array} \end{array}$$

$$\begin{array}{r} \text{(b)} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 4 \\ \times \quad 2 \\ \hline 4 \quad 8 \end{array} \end{array}$$

$$\begin{array}{r} \text{(c)} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 1 \quad 1 \\ \times \quad 9 \\ \hline 9 \quad 9 \end{array} \end{array}$$

$$\begin{array}{r} \text{(d)} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 1 \quad 4 \\ \times \quad 2 \\ \hline 2 \quad 8 \end{array} \end{array}$$

$$\begin{array}{r} \text{(e)} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 4 \quad 2 \\ \times \quad 2 \\ \hline 8 \quad 4 \end{array} \end{array}$$

$$\begin{array}{r} \text{(f)} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 8 \quad 9 \\ \times \quad 1 \\ \hline 8 \quad 9 \end{array} \end{array}$$

$$\begin{array}{r} \text{(g)} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 3 \quad 3 \\ \times \quad 2 \\ \hline 6 \quad 6 \end{array} \end{array}$$

$$\begin{array}{r} \text{(h)} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 9 \quad 7 \\ \times \quad 0 \\ \hline 0 \quad 0 \end{array} \end{array}$$

2. Multiply

$$\begin{array}{r} \text{(a)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 2 \quad 0 \quad 4 \\ \times \quad 2 \\ \hline 4 \quad 0 \quad 8 \end{array} \end{array}$$

$$\begin{array}{r} \text{(b)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 2 \quad 3 \quad 3 \\ \times \quad 3 \\ \hline 6 \quad 9 \quad 9 \end{array} \end{array}$$

$$\begin{array}{r} \text{(c)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 3 \quad 2 \quad 1 \\ \times \quad 3 \\ \hline 9 \quad 6 \quad 3 \end{array} \end{array}$$

$$\begin{array}{r} \text{(d)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 4 \quad 0 \quad 2 \\ \times \quad 2 \\ \hline 8 \quad 0 \quad 4 \end{array} \end{array}$$

$$\begin{array}{r} \text{(e)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 1 \quad 0 \quad 2 \\ \times \quad 4 \\ \hline 4 \quad 0 \quad 8 \end{array} \end{array}$$

$$\begin{array}{r} \text{(f)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 2 \quad 2 \quad 2 \\ \times \quad 4 \\ \hline 8 \quad 8 \quad 8 \end{array} \end{array}$$

$$\begin{array}{r} \text{(g)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 6 \quad 7 \quad 9 \\ \times \quad 1 \\ \hline 6 \quad 7 \quad 9 \end{array} \end{array}$$

$$\begin{array}{r} \text{(h)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 9 \quad 9 \quad 9 \\ \times \quad 0 \\ \hline 0 \quad 0 \quad 0 \end{array} \end{array}$$

$$\begin{array}{r} \text{(i)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 1 \quad 0 \quad 1 \\ \times \quad 8 \\ \hline 8 \quad 0 \quad 8 \end{array} \end{array}$$

$$\begin{array}{r} \text{(j)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 2 \quad 0 \quad 3 \\ \times \quad 3 \\ \hline 6 \quad 0 \quad 9 \end{array} \end{array}$$

$$\begin{array}{r} \text{(k)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 4 \quad 2 \quad 4 \\ \times \quad 2 \\ \hline 8 \quad 4 \quad 8 \end{array} \end{array}$$

$$\begin{array}{r} \text{(l)} \quad \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 1 \quad 1 \quad 1 \\ \times \quad 9 \\ \hline 9 \quad 9 \quad 9 \end{array} \end{array}$$