

Addition of Two 2-digit Numbers (without carry over)

Example

Add 12 and 15.

$$\begin{array}{r} \text{T} \quad \text{O} \\ 1 \quad 2 \\ + 1 \quad 5 \\ \hline 2 \quad 7 \end{array}$$

Method :

Step 1 : Write the tens digit below tens' column and the ones digit below ones' column.

Step 2 : First, add the ones together and write below ones' column.

$$2 \text{ ones} + 5 \text{ ones} = 7 \text{ ones}$$

Step 3 : Then, add the tens together and write below tens' column.

$$1 \text{ ten} + 1 \text{ ten} = 2 \text{ tens}$$

Ans. 27

Exercise

Add the following.

$$\begin{array}{r} \text{T} \quad \text{O} \\ 3 \quad 5 \\ + 1 \quad 2 \\ \hline 47 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 1 \quad 3 \\ + 2 \quad 5 \\ \hline 38 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 5 \quad 4 \\ + 3 \quad 2 \\ \hline 86 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 4 \quad 2 \\ + 3 \quad 5 \\ \hline 77 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 3 \\ + 2 \quad 0 \\ \hline 43 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 4 \quad 4 \\ + 2 \quad 2 \\ \hline 77 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 5 \\ + 3 \quad 3 \\ \hline 58 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 5 \quad 5 \\ + 2 \quad 2 \\ \hline 77 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 7 \quad 2 \\ + 2 \quad 0 \\ \hline 92 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 6 \quad 0 \\ + 2 \quad 0 \\ \hline 80 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 3 \quad 3 \\ + 1 \quad 1 \\ \hline 94 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 7 \quad 9 \\ + 2 \quad 0 \\ \hline 99 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 7 \quad 6 \\ + 1 \quad 1 \\ \hline 87 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 9 \quad 5 \\ + 0 \quad 2 \\ \hline 97 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 8 \quad 5 \\ + 1 \quad 0 \\ \hline 95 \end{array}$$

Example 2 Add 13, 24 and 35.

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 1 \ 3 \\
 2 \ 4 \\
 + \ 3 \ 5 \\
 \hline
 \text{7} \ 2
 \end{array}$$

Step 1 : Add the ones together.

$$\begin{aligned}
 3 \text{ ones} + 4 \text{ ones} + 5 \text{ ones} &= 12 \text{ ones} \\
 12 \text{ ones} &= 10 \text{ ones} + 2 \text{ ones} \\
 &= 1 \text{ ten} + 2 \text{ ones}
 \end{aligned}$$

Write 2 under ones' column and carry over 1 ten to the tens' column.

Step 2 : Add the tens together including the carry over.

$$\begin{aligned}
 1 \text{ ten} + 2 \text{ tens} + 3 \text{ tens} + 1 \text{ ten} \text{ (carry over)} \\
 &= 7 \text{ tens}
 \end{aligned}$$

Write 7 under tens' column.

Ans. 72

Exercise

Add the following by regrouping.

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 8 \ 6 \\
 + \ 1 \ 5 \\
 \hline
 \text{10} \ 1
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 4 \ 7 \\
 + \ 4 \ 5 \\
 \hline
 \text{9} \ 1
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 3 \ 5 \\
 + \ 4 \ 6 \\
 \hline
 \text{8} \ 1
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 7 \ 5 \\
 + \ 1 \ 5 \\
 \hline
 \text{9} \ 0
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 7 \ 5 \\
 + \ 1 \ 6 \\
 \hline
 \text{9} \ 1
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 5 \ 7 \\
 + \ 1 \ 3 \\
 \hline
 \text{7} \ 0
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 3 \ 9 \\
 + \ 2 \ 7 \\
 \hline
 \text{6} \ 6
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 5 \ 8 \\
 + \ 1 \ 8 \\
 \hline
 \text{7} \ 6
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 5 \ 5 \\
 + \ 0 \ 7 \\
 \hline
 \text{6} \ 2
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 1 \ 9 \\
 + \ 1 \ 7 \\
 \hline
 \text{3} \ 6
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 4 \ 3 \\
 1 \ 4 \\
 + \ 2 \ 3 \\
 \hline
 \text{8} \ 0
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 2 \ 3 \\
 3 \ 5 \\
 + \ 3 \ 6 \\
 \hline
 \text{9} \ 4
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 1 \ 4 \\
 4 \ 5 \\
 + \ 2 \ 7 \\
 \hline
 \text{8} \ 6
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 2 \ 2 \\
 5 \ 5 \\
 + \ 1 \ 4 \\
 \hline
 \text{9} \ 1
 \end{array}$$

$$\begin{array}{r}
 \text{T O} \\
 \text{1} \\
 3 \ 8 \\
 1 \ 4 \\
 + \ 2 \ 2 \\
 \hline
 \text{7} \ 4
 \end{array}$$