

LESSON 2 - ADDITION

STEPS FOR ADDITION OF NUMBERS WITHOUT GROUPING

Example 1: $25 + 3 = \underline{\quad}$

STEP 1: Mark the numbers in the ones place.
Here the numbers in the ones place are 5 and 3

tens	ones
2	5
	3

STEP 2: Add the numbers in the ones place.

So $5 + 3 = 8$

tens	ones
2	5
	3
	8

STEP 3: Bring the numbers in the tens place down. Add it to the ones place.

$$25 + 3 = \boxed{28}$$

tens	ones
2	5
↓	3
2	8

EXAMPLE 2: Add $14 + 4 =$

STEP 1: First write the numbers one below the other.

$$\begin{array}{r} 14 \\ + 4 \\ \hline \end{array}$$

STEP 2: Add the numbers in Ones place.

$$\begin{array}{r} 14 \\ + 4 \\ \hline 8 \end{array}$$

2. STEPS FOR ADDITION OF NUMBERS WITH GROUPING

EXAMPLE: Add $14 + 8 =$

STEP 1: First write the numbers one below the other.

$$\begin{array}{r} 14 \\ + 8 \\ \hline \end{array}$$

STEP 2: Add the numbers in Ones place. If the addition is more than 9, then the tens is carried to the next place value.

Here $4 + 8 = 12$. 1 is carried to the next place.

$$\begin{array}{r} 14 \\ + 8 \\ \hline 12 \end{array}$$

STEP 3: Add the numbers in the tens place.

Here $14 + 8 = 22$

$$\begin{array}{r} \textcircled{1} \\ 14 \\ + 8 \\ \hline 22 \end{array}$$

STEP 4: If there is a number in the tens place, add the numbers in the ones place separately and add the numbers in the tens place.

Here $14 + 18 = 38$

$$\begin{array}{r} 1 \\ + 14 \\ 18 \\ \hline 32 \end{array}$$

EXERCISE

7 2

+ 6

4 5

+ 4

6 2

+ 6

8 8

+ 6

7 9

+ 1 0

9 2

+ 6

4 2

+ 6

8 5

+ 5

6 8

+ 2

3 8

+ 6

5 9

+ 5

2 9

+ 6

7 0

+ 6

6 5

+ 4

6 6

+ 6

7 8

+ 6

3 9

+ 0

9 2

+ 3

9 2

+ 6

1 5

+ 4

5 2

+ 6

7 8

+ 6

3 3

+ 6

4 2

+ 7

EXERCISE

$$\begin{array}{r} 24 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 44 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 65 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 49 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 84 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 29 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 98 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 78 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 66 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 69 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 92 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 41 \\ + 6 \\ \hline \end{array}$$

3. STEPS FOR ADDITION OF TWO DIGIT NUMBERS

EXAMPLE: a) $34 + 98$

STEP 1: Write the numbers one below the other.

$$\begin{array}{r} 34 \\ + 98 \\ \hline \end{array}$$

STEP 2: First add the digits in units place.

Add the units place numbers which are 4 and 8.
When we add we get 12.

$$4 + 8 = 12$$

Since 12 is a 2 digit number, 1 should be carried to the tens place.

$$\begin{array}{r} 34 \\ + 98 \\ \hline 12 \end{array}$$

STEP 3: Add all the numbers in tens place. Add the numbers in tens place which are 1, 3 and 9.

We get $34 + 98 = 132$

$$\begin{array}{r} 1 \\ 34 \\ + 98 \\ \hline 132 \end{array}$$

EXERCISE

$$\begin{array}{r} 42 \\ + 67 \\ \hline \end{array}$$

$$\begin{array}{r} 19 \\ + 29 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ + 60 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ + 43 \\ \hline \end{array}$$

$$\begin{array}{r} 35 \\ + 61 \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ + 37 \\ \hline \end{array}$$

$$\begin{array}{r} 94 \\ + 45 \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ + 69 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ + 46 \\ \hline \end{array}$$

$$\begin{array}{r} 49 \\ + 61 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ + 86 \\ \hline \end{array}$$

$$\begin{array}{r} 44 \\ + 33 \\ \hline \end{array}$$

$$\begin{array}{r} 87 \\ + 77 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ + 70 \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ + 66 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ + 16 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ + 69 \\ \hline \end{array}$$

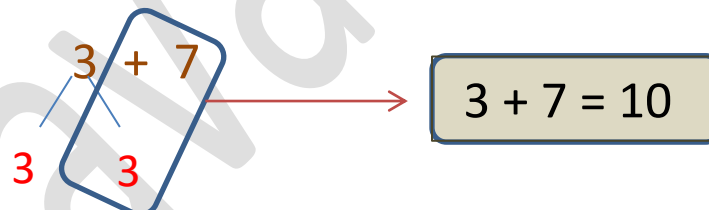
4. CONVERTING TO TEN TO ADD

EXAMPLE: $6 + 7 =$

STEP 1: Split any one number into two numbers in such a way that when added to the other number, the other number should become ten.



STEP 2: Now add the numbers to make 10



STEP 3: Next add the remaining number to 10 to get the answer.

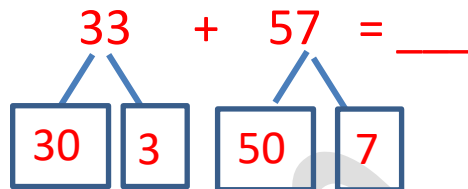
$$6 + 7 = 10 + 3 = 13$$

EXERCISE

$1 + 9 =$	$2 + 8 =$	$4 + 7 =$
$2 + 9 =$	$3 + 8 =$	$5 + 7 =$
$3 + 9 =$	$4 + 8 =$	$6 + 7 =$
$4 + 9 =$	$5 + 8 =$	$7 + 7 =$
$5 + 9 =$	$6 + 8 =$	$5 + 6 =$
$6 + 9 =$	$7 + 8 =$	$6 + 6 =$
$7 + 9 =$	$8 + 8 =$	$6 + 7 =$
$8 + 9 =$	$9 + 9 =$	$5 + 5 =$

5. SPLITTING OF TENS TO ADD

EXAMPLE: Add 33 and 57



STEP 1: Split the number 33 into 30 and 3

STEP 2: Add the Tens

$$30 + 50 = 80$$

It becomes easy to add the numbers in the tens place after splitting.

STEP 3: Now add the ones

$$7 + 3 = 10$$

STEP 4: Next add the numbers from step 2 and step 3

$$80 + 10 = 90$$

$$33 + 57 = 90$$

To begin with write the splitting and learn.

Later do the splitting mentally and add.

EXERCISE

$23 + 14 = \underline{\quad}$ <table border="1"><tr><td>$14 = 10 + 4$</td></tr><tr><td>$23 = 20 + 3$</td></tr><tr><td>$30 + 7 = 37$</td></tr></table> $23 + 14 = 37$	$14 = 10 + 4$	$23 = 20 + 3$	$30 + 7 = 37$	$17 + 12 = \underline{\quad}$	$12 + 17 = \underline{\quad}$	$18 + 11 = \underline{\quad}$
$14 = 10 + 4$						
$23 = 20 + 3$						
$30 + 7 = 37$						
$56 + 23 = \underline{\quad}$	$22 + 17 = \underline{\quad}$	$36 + 54 = \underline{\quad}$	$41 + 34 = \underline{\quad}$			
$24 + 16 = \underline{\quad}$	$31 + 77 = \underline{\quad}$	$43 + 45 = \underline{\quad}$	$26 + 33 = \underline{\quad}$			