Addition

Addition is the process of combining two or more numbers to find their total or sum. In addition, the numbers we add are called addends, and the result is called the sum.

For example, if we have 500 apples and we get 300 more, we add these numbers together to find the total:

500 + 300 = 800 apples.

Steps to Add Large Numbers

Align the digits: Place the numbers one below the other, making sure the digits are aligned correctly according to their place value (ones, tens, hundreds, thousands, etc.).

Start from the right: Begin adding from the rightmost column (ones place).

Carry over if needed: If the sum of any column is greater than 9, carry over the extra value to the next column.

Continue adding: Move left and continue adding, carrying over when necessary.

Write the sum: Once all columns are added, write down the final sum.

Properties of Addition

Commutative Property: Changing the order of the numbers does not change the sum. For example, 7 + 3 = 3 + 7.

Associative Property: Grouping numbers differently does not change the sum. For example, (2 + 3) + 4 = 2 + (3 + 4).

Identity Property: Any number added to 0 gives the same number. For example, 5 + 0 = 5.
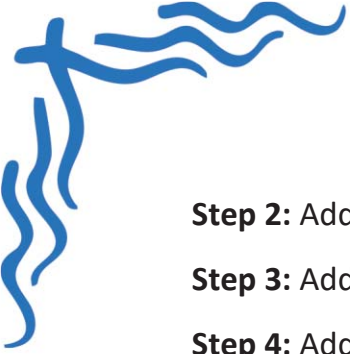
Example 1

Question: Add 2,456 and 3,798.

Solution:

Align the numbers:

2,456

3,798

Step 1: Add ones place: 6 + 8 = 14, write 4, carry over 1.

Step 2: Add tens place: 5 + 9 = 14, plus 1 (carry over) = 15, write 5, carry over 1.

Step 3: Add hundreds place: 4 + 7 = 11, plus 1 (carry over) = 12, write 2, carry over 1.

Step 4: Add thousands place: 2 + 3 = 5, plus 1 (carry over) = 6.

So, 2,456 + 3,798 = 6,254.

Answer: 2,456 + 3,798 = 6,254

Example 2

Question: Add 4,320 and 1,876.

Solution:

Align the numbers:

4,320

1,876

Step 1: Add ones place: 0 + 6 = 6.

Step 2: Add tens place: 2 + 7 = 9.

Step 3: Add hundreds place: 3 + 8 = 11, write 1, carry over 1.

Step 4: Add thousands place: 4 + 1 = 5, plus 1 (carry over) = 6.

So, 4,320 + 1,876 = 6,196.

Answer: 4,320 + 1,876 = 6,196

Summary Points

- Addition involves combining two or more numbers to find their total or sum.
- Use the commutative property and associative property to add numbers in any order or group.
- Carry over if the sum in any column is greater than 9.
- Addition is a simple but powerful operation that helps solve many problems in everyday life.