



|| Single Digit Addition ||

2

Carry & Non-Carry :

Single-digit Carry: When the sum of two single-digit numbers exceeds 9 a carry occurs. In this case, you write down the rightmost digit of the sum and carry the tens digit to the left (if any).

Example-1: $5 + 7 = 12$ (more than 9 i.e. two digit number)

Single-digit Non-Carry: When the sum of two single-digit numbers is less than or equal to 9 no carry occurs. You simply write down the sum.

Example-2: $3 + 4 = 7$ (less than 9 i.e. single digit number)

Pair of Carry Number

(5+5), (5+6), (5+7), (5+8), (5+9)

(6+4), (6+5), (6+6), (6+7), (6+8), (6+9)

(7+3), (7+4), (7+5), (7+6), (7+7), (7+8), (7+9)

(8+2), (8+3), (8+4), (8+5), (8+6), (8+7), (8+8), (8+9)

(9+1), (9+2), (9+3), (9+4), (9+5), (9+6), (9+7), (9+8), (9+9)

Addition with +9 (Carry Number) :

If any single digit (**Exclude 0**) addition with 9 then the result will be to write 1 in the tenth place digit & write before (Subtract with Number friend of 9 i.e. 1) the number in the unit place digit.

$$A + 9 = 1 \boxed{A - 1}$$

Example- 1: $8 + 9 = 1 (8 - 1) = 17$, Here number friend of 9 is 1, so we have to subtract from 8 the result is $8 - 1 = 7$ & simply write 1 in the tenth place.

$$2 + 9 = 1 (2 - 1) = 11$$

$$7 + 9 = 1 (7 - 1) = 16$$

$$6 + 9 = 1 (6 - 1) = 15$$

$$9 + 9 = 1 (9 - 1) = 18 \text{ etc.}$$

Two-digit number with 9:

ADDITION

If any two-digit number (**excluded 0 in unit digit**) is added with 9 then the result will have come **AB** Formula i.e. tenth place digit is after the number & unit place digit. is before the number.

$$XY + 9 = AB = (\text{After Number of } X) (\text{Before Number of } Y)$$

Example-2: $34 + 9 = ?$

After the Number 3 is 4 and before the number 4 is 3 so the result is 43.

$$67 + 9 = (\text{After the Number 6 is 7}) (\text{Before the Number 7 is 6}) = 76$$

$$49 + 9 = (\text{After the Number 4 is 5}) (\text{Before the Number 9 is 8}) = 58$$

$$88 + 9 = (\text{After the Number 8 is 9}) (\text{Before the Number 8 is 7}) = 97$$

Addition with +8 (Carry Number) :

If any single digit (**more than 1**) adds with 8 then the result will be to write 1 in the tenth place digit & Subtract from that number with Number friend of 8 i.e. 2 in the unit place digit.

$$A + 8 = 1 \boxed{A - 2}$$

Example-1: $5 + 8 = 1 (5 - 2) = 13$, Here number friend of 8 is 2, so we have to subtract from 5, the result is $5 - 2 = 3$ & simply write 1 in the tenth place.

$$2 + 8 = 1 (2 - 2) = 10,$$

$$7 + 8 = 1 (7 - 2) = 15$$

$$8 + 8 = 1 (8 - 2) = 16,$$

$$4 + 8 = 1 (4 - 2) = 12 \text{ etc.}$$

Two-digit number with 8:

If any two-digit number (**more than 1 in unit place digit**) is added with 8 then the result will have come after number of tenth place digit and subtract from unit place digit with number friend of 8 i.e. **2**

$$XY + 8 = AB = (\text{After Number of } X) (Y - 2)$$

Example-2: $67 + 8 = ?$

After the Number 6 is 7 and subtract 2 from the unit place digit.

$$\begin{array}{c} +1 \quad -2 \\ 67 + 8 = 75 \end{array}$$

Addition with +7 (Carry Number) :

If any single (**more than 2**) digit addition with 7, then the result will be to write 1 in the tenth place & Subtract from that number with number friend of 7 i.e.3 in the unit place.

$$A + 7 = 1 \boxed{A - 3}$$

Example- 1: $5 + 7 = 1 (5 - 3) = 12$, Here number friend of 7 is 3, so we have to subtract from 5, the result is $5 - 3 = 2$ & simply write 1 in the tenth place number.

$$5 + 7 = 1 (5 - 3) = 12,$$

$$7 + 7 = 1 (7 - 3) = 14$$

$$8 + 7 = 1 (8 - 3) = 15,$$

$$4 + 7 = 1 (4 - 3) = 11 \text{ etc.}$$

Two-digit number with 7:

If any two-digit number (**more than 2 in unit place digit**) is added with 7 then the result will have come after number of tenth place digit and subtract from unit place digit with number friend of 7 i.e. **3**

$$XY + 7 = 1 \boxed{AB} = (\text{After Number of X}) (Y - 3)$$

Example-2: $67 + 7 = ?$

After the Number 6 is 7 and subtract 3 from the unit place digit.

$$\begin{array}{r} +1 -3 \\ 67 + 7 = 74 \end{array}$$

Addition with +6 (Carry Number) :

If any single (**more than 3**) digit addition with 6, then the result will be to write 1 in the tenth place digit & Subtract from that number with number friend of 6 i.e.4 in the unit place.

$$A + 6 = 1 \boxed{A - 4}$$

Example- 1: $5 + 6 = 1 (5 - 4) = 11$ Here number friend of 6 is 4, so we have to subtract from 5, the result is $5 - 4 = 1$ & simply write 1 in the tenth place number.

$$5 + 6 = 1 (5 - 4) = 11,$$

$$7 + 6 = 1 (7 - 4) = 13$$

ADDITION

$$8 + 6 = 1 (8 - 4) = 14,$$

$$4 + 6 = 1 (4 - 4) = 10 \text{ etc.}$$

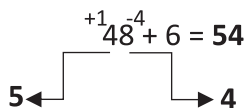
Two-digit number with 6:

If any two-digit number (**more than 3 in unit place digit**) is added with 6 then the result will have come after number of tenth place digit and subtract from unit place digit with number friend of 6 i.e. **4**

$$XY + 6 = AB = (\text{After Number of X}) (Y - 4)$$

Example-2: $48 + 6 = ?$

After the Number 4 is 5 and subtract 4 from the unit place digit.

$$\begin{array}{c} +1 \quad -4 \\ 48 + 6 = 54 \end{array}$$


Mental Memorize some confuse Addition Pair :

Pair	Sum
6 and 5	11
6 and 7	13
7 and 4	11
7 and 5	12
8 and 3	11
8 and 5	13



PRACTICE WORK ASSIGNMENT



Test yourself

Two digit with Single digit Addition:

1) $23 + 9 = ?$

2) $69 + 9 = ?$

3) $51 + 9 = ?$

4) $47 + 9 = ?$

5) $37 + 8 = ?$

6) $86 + 8 = ?$

7) $29 + 8 = ?$

8) $55 + 8 = ?$

9) $24 + 7 = ?$

10) $69 + 7 = ?$

11) $48 + 7 = ?$

12) $58 + 7 = ?$

13) $77 + 7 = ?$

14) $53 + 7 = ?$

15) $33 + 9 = ?$

16) $68 + 6 = ?$

17) $21 + 9 = ?$

18) $88 + 6 = ?$

19) $79 + 6 = ?$

20) $99 + 5 = ?$

21) $81 + 9 = ?$

22) $65 + 7 = ?$

23) $92 + 8 = ?$

24) $36 + 6 = ?$

25) $77 + 6 = ?$

26) $89 + 5 = ?$

27) $64 + 9 = ?$

28) $95 + 8 = ?$

29) $39 + 8 = ?$

30) $56 + 8 = ?$

31) $78 + 8 = ?$

32) $98 + 8 = ?$