Addition & Subtraction

1. Base Method:

Numbers 'powers of 10' are called 'base numbers'.

Eg: (a) '97' is 3 less than the base Number 100.
Hence Number 97 can be written as '-3'.

(b) '105' is 5 more than the base Number 100.
Hence Number 105 can be written as '+5'

(a). Addition (Base Method)

Condition: Both Numbers are close to 100.

① Eg: 93 + 90.

S1: Base Numbers.

$93 \xrightarrow{(100)} -7$.

$90 \xrightarrow{(100)} -10$.

S2: Add the differences.

$93(100) \rightarrow -7$
$90(100) \rightarrow -10$
-17.

S3: $200 - 17 = \underline{183}$.

② Eg: 82 + 74.

S1:
$82 \xrightarrow{(100)} -18$
$74 \xrightarrow{(100)} -26$

S2: $200 - 44 = \underline{156}$.

2. One more than previous one

a. Addition

While adding numbers, if the sum of digits is more than single digit, we consider that in next digit.

Eg: 263 + 179.

```
  2 6 3
+ 1 7 9
-------
  4 4 2
```

3. Subtraction (Base Method)

(a) Eg: 92 - 89.

S1: Base Numbers

92 (100) → -8 ↓ Sub.
89 (100) → -11 ↓

S2: (100-100) → -8-(-11).

= -8+11 = 3.

(b) Eg: 108 - 97.

S1: 108 (100) → +8 ↓ Sub.
97 (100) → -3. ↓

0 → +8-(-3)

= 8+3 = 11.

4. Subtraction (~~complementary to 10~~ one more than previous one).

Eg: 84 - 36.

Sl: 8 4
*3 6
4 8

'4' is smaller than 6.

① * Find complementary of '6'.
② i.e. 4.
③ Add this 4 to '4' in 84.
④ 8.
⑤ 8* - (3+1) = 4

Eg: 3 9 8
2 4 6
1 5 2

~~① comp. of~~
* None of the digits are lesser.

Eg: 4 8 3
*3 *9 6
0 8 7

① complementary of 6 → 4
② Add. 4 to 3. (7).
③ '10' - comp. 0.
④ 8+0 = 8