Exercise 3B

Q5

Answer :

(i) 6784 + 9999
= 6784 + (10000 − 1)
= (6784 + 10000) − 1 (Using associative property of addition)
= 16784 − 1
= 16783

(ii) 10578 + 99999
= 10578 + (100000 − 1)
= (10578 + 100000) − 1 (Using associative property of addition)
= 110578 − 1
= 110577

Q6

Answer :

For any whole numbers a, b and c, we have:
$(a + b) + c = a + (b + c)$

Let $a = 2$, $b = 3$ and $c = 4$ [we can take any values for a, b and c]

LHS = $(a + b) + c$
= (2 + 3) + 4
= 5 + 4
= 9

RHS = $a + (c + b)$
= $a + (b + c)$ [∵ Whole numbers follow the commutative law]
= 2 + (3 + 4)
= 2 + 7
= 9

∴ This shows that associativity (in addition) is one of the properties of whole numbers.

Q7

Answer :

In a magic square, the sum of each row is equal to the sum of each column and the sum of each main diagonal. By using this concept, we have:

(i)

4	9	2
3	5	7
8	1	6

(ii)

16	2	12
6	10	14
8	18	4

(iii)

2	15	16	5
9	12	11	6
13	8	7	10
14	3	4	17

(iv)

7	18	17	4
8	13	14	11
12	9	10	15
19	6	5	16

Q8

Answer :

(i) F (false). The sum of two odd numbers may not be an odd number. Example: 3 + 5 = 8, which is an even number.

(ii) T (true). The sum of two even numbers is an even number. Example: 2 + 4 = 6, which is an even number.

(iii) T (true). The sum of an even and an odd number is an odd number. Example: 5 + 4 = 9, which is an odd number.

********** END **********