



Exercise 3B

Q1

Answer :

(i) $458 + 639 = 639 + 458$

(ii) $864 + 2006 = 2006 + 864$

(iii) $1946 + 984 = 984 + 1946$

(iv) $8063 + 0 = 8063$

(v) $53501 + (574 + 799) = 574 + (53501 + 799)$

Q2

Answer :

(i) $16509 + 114 = 16623$

By reversing the order of the addends, we get:

$$114 + 16509 = 16623$$

$$\therefore 16509 + 114 = 114 + 16509$$

(ii) $2359 + 548 = 2907$

By reversing the order of the addends, we get:

$$548 + 2359 = 2907$$

$$\therefore 2359 + 548 = 548 + 2359$$

(iii) $19753 + 2867 = 22620$

By reversing the order of the addends, we get:

$$2867 + 19753 = 22620$$

$$\therefore 19753 + 2867 = 2867 + 19753$$

Q3

Answer :

We have:

$$(1546 + 498) + 3589 = 2044 + 3589 = 5633$$

$$\text{Also, } 1546 + (498 + 3589) = 1546 + 4087 = 5633$$

Yes, the two sums are equal.

The associative property of addition is satisfied.

Q4

Answer :

$$\begin{aligned} & \text{(i) } 953 + 707 + 647 \\ & 953 + (707 + 647) \quad \text{(Using associative property of addition)} \\ & = 953 + 1354 \\ & = 2307 \end{aligned}$$

$$\begin{aligned} & \text{(ii) } 1983 + 647 + 217 + 353 \\ & (1983 + 647) + (217 + 353) \quad \text{(Using associative property of addition)} \\ & = 2630 + 570 \\ & = 3200 \end{aligned}$$

$$\begin{aligned} & \text{(iii) } 15409 + 278 + 691 + 422 \\ & (15409 + 278) + (691 + 422) \quad \text{(Using associative property of addition)} \\ & = 15687 + 1113 \\ & = 16800 \end{aligned}$$

$$\begin{aligned} & \text{(iv) } 3259 + 10001 + 2641 + 9999 \\ & (3259 + 10001) + (2641 + 9999) \quad \text{(Using associative property of addition)} \\ & = 13260 + 12640 \\ & = 25900 \end{aligned}$$

$$\begin{aligned} & \text{(v) } 1 + 2 + 3 + 4 + 96 + 97 + 98 + 99 \\ & (1 + 2 + 3 + 4) + (96 + 97 + 98 + 99) \quad \text{(Using associative property of addition)} \\ & = (10) + (390) \\ & = 400 \end{aligned}$$

$$\begin{aligned} & \text{(vi) } 2 + 3 + 4 + 5 + 45 + 46 + 47 + 48 \\ & (2 + 3 + 4 + 5) + (45 + 46 + 47 + 48) \quad \text{(Using associative property of addition)} \\ & = 14 + 186 \\ & = 200 \end{aligned}$$

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