Class – VI **Sub :- Math**

Chapter – 2

Whole numbers

(Note :- In all the questions, first two solutions are solved and rest of the problems you have to solve it in your Math C.W notebook.)

Exercise 2.2

1. **Find the sum by suitable rearrangement:**

(a) 837 + 208 + 363

Sol :- (Given) 837 + 208 + 363

= (837 + 363) + 208

= 1200 + 208 = 1408

(b) 1962 + 453 + 1538 + 647

Sol :- (Given) 1962 + 453 + 1538 + 647

= (1962 + 1538) + (453 + 647)

= 3500 + 1100

= 4600

2. **Find the product by suitable rearrangement:**

(a) 2 × 1768 × 50

Sol :- (Given) 2 × 1768 × 50

= 2 × 50 × 1768

= 100 × 1768

= 176800

(d) 625 × 279 × 16

Sol :- (Given) 625 × 279 × 16

= 625 × 16 × 279

= 10000 × 279

= 2790000

(b) 4 × 166 × 25

(c) 8 × 291 × 125

(e) 285 × 5 × 60

(f) 125 × 40 × 8 × 25

3. Find the value of the following:

(b) 54279 × 92 + 8 × 54279

Sol :- (Given) 54279 × 92 + 8 × 54279

= 54279 × 92 + 54279 × 8

= 54279 × (92 + 8)

= 54279 × 100

= 5427900

(c) 3845 × 5 × 782 + 769 × 25 × 218

Sol :- (Given) 3845 × 5 × 782 + 769 × 25 × 218

= 3845 × 5 × 782 + 769 × 5 × 5 × 218

= 3845 × 5 × 782 + 3845 × 5 × 218

= 3845 × 5 × (782 + 218)

= 19225 × 1000

= 19225000

(a) **297 × 17 + 297 × 3**

(c) 81265 × 169 − 81265 × 69

4. Find the product using suitable properties.

(a) 738 × 103

Sol :- (given) 738 × 103

= 738 × (100 + 3)

= 738 × 100 + 738 × 3 (Distributive property)

= 73800 + 2214

= 76014

(d) 1005 × 168

Sol :- (given) 1005 × 168

= (1000 + 5) × 168

= 1000 × 168 + 5 × 168 (Distributive property)

= 168000 + 840 = 168840

(b) 854 × 102

(c) 258 × 1008

5. A taxi driver filled his car petrol tank with 40 litres of petrol on Monday. The next day, he filled the tank with 50 litres of petrol. If the petrol costs Rs 44 per litre, how much did he spend in all on petrol?

Sol - Quantity of petrol filled on Monday = 40 *l*
Quantity of petrol filled on Tuesday = 50 *l*
Total quantity filled = (40 + 50) *l*
Cost of petrol (per *l*) = Rs 44

Total money spent = 44 × (40 + 50)

= 44 × 90 = Rs 3960

6. A vendor supplies 32 litres of milk to a hotel in the morning and 68 litres of milk in the evening. If the milk costs Rs 15 per litre, how much money is due to the vendor per day?

Sol :- Quantity of milk supplied in the morning = 32 *l*
Quantity of milk supplied in the evening = 68 *l*
Total of milk per litre = (32 + 68) *l*

Cost of milk per litre = Rs 15

Total cost per day = 15 × (32 + 68)

= 15 × 100 = Rs 1500

7. Match the following:

(i) 425 × 136 = 425 × (6 + 30 + 100)	(a) Commutativity under multiplication
(ii) 2 × 49 × 50 = 2 × 50 × 49	(b) Commutativity under addition
(iii) 80 + 2005 + 20 = 80 + 20 + 2005	(c) Distributivity of multiplication over addition

Exercise 2.3

1. Which of the following will not represent zero?

(a) 1 + 0

Ans - 1 + 0 = 1

It does not represent zero.

(b) 0 × 0

Ans - 0 × 0 = 0

It represents zero.

(c) $\frac{0}{2}$

Ans - $\frac{0}{2} = 0$

It represents zero.

(d) $\frac{10-10}{2}$

Ans - $\frac{10-10}{2} = 0$

It represents zero.

2. **If the product of two whole numbers is zero, can we say that one or both of them will be zero? Justify through examples.**

Sol :- If the product of 2 whole numbers is zero, then one of them is definitely zero.

For example, $0 \times 2 = 0$ and $17 \times 0 = 0$

If the product of 2 whole numbers is zero, then both of them may be zero.

$0 \times 0 = 0$

However, $2 \times 3 = 6$

(Since numbers to be multiplied are not equal to zero, the result of the product will also be non-zero.)

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3. **If the product of two whole numbers is 1, can we say that one of both of them will be 1? Justify through examples.**

Sol :- If the product of 2 numbers is 1, then both the numbers have to be equal to 1.

For example, $1 \times 1 = 1$

However, $1 \times 6 = 6$

Clearly, the product of two whole numbers will be 1 in the situation when both numbers to be multiplied are 1.

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4. **Find using distributive property:**

(a) 728×101

Sol :- $728 \times 101 = 728 \times (100 + 1)$

$= 728 \times 100 + 728 \times 1$

$= 72800 + 728 = 73528$

(d) **4275×125**

Sol :- $4275 \times 125 = (4000 + 200 + 100 - 25) \times 125$

$= 4000 \times 125 + 200 \times 125 + 100 \times 125 - 25 \times 125$

$= 500000 + 25000 + 12500 - 3125$

$= 534375$

(b) 5437 × 1001

(c) 824 × 25

(e) 504 × 35

5. Study the pattern:

1 × 8 + 1 = 9

12 × 8 + 2 = 98

123 × 8 + 3 = 987

1234 × 8 + 4 = 9876

12345 × 8 + 5 = 98765

Write the next two steps. Can you say how the pattern works?

(Hint: 12345 = 11111 + 1111 + 111 + 11 + 1).