CLASS NOTES-ANSWERS

EXERCISE 2.2

1. Find the sum by suitable rearrangement:

    (a) 837 + 208 + 363　　　　(b) 1962 + 453 + 1538 + 647

Answer:

    (a) 837 + 208 + 363

        = (837 + 363) + 208

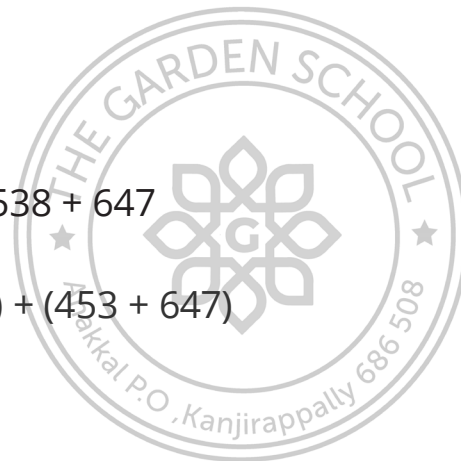   = 1200 + 208

        = 1408

    (b) 1962 + 453 + 1538 + 647

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

        = 3500 + 1100

        = 4600

2. Find the product by suitable rearrangement:

    (a) 2 × 1768 × 50　　(b) 4 × 166 × 25　　(c) 8 × 291 × 125

    (d) 625 × 279 × 16　(e) 285 × 5 × 60　　(f) 125 × 40 × 8 × 25

Answer:

 (a) 2 × 1768 × 50

   = 2 × 50 × 1768

   = 100 × 1768

= 176800

(b) 4 × 166 × 25

   = 4 × 25 × 166

   = 100 × 166

   = 16600

(c) 8 × 291 × 125

   = 8 × 125 × 291

   = 1000 × 291

   = 291000

(d) 625 × 279 × 16

   = 625 × 16 × 279

   = 10000 × 279

   = 2790000

(e) 285 × 5 × 60

   = 285 × 300

   = 85500

(f) 125 × 40 × 8 × 25

   = 125 × 8 × 40 × 25

   = 1000 × 1000

   = 1000000

3. Find the value of the following:

(a) 297 × 17 + 297 × 3

(b) 54279 × 92 + 8 × 54279

(c) 81265 × 169 – 81265 × 69

(d) 3845 × 5 × 782 + 769 × 25 × 218

Answer:

(a) 297 × 17 + 297 × 3

= 297 × (17 + 3)

= 297 × 20

= 5940

(b) 54279 × 92 + 8 × 54279

= 54279 × 92 + 54279 × 8

= 54279 × (92 + 8)

= 54279 × 100

= 5427900

(c) 81265 × 169 – 81265 × 69

= 81265 × (169 – 69)

= 81265 × 100

= 8126500

(d) 3845 × 5 × 782 + 769 × 25 × 218

= 3845 × 5 × 782 + 769 × 5 × 5 × 218

= (3845 × 5) × 782 + (3845 × 5) × 218
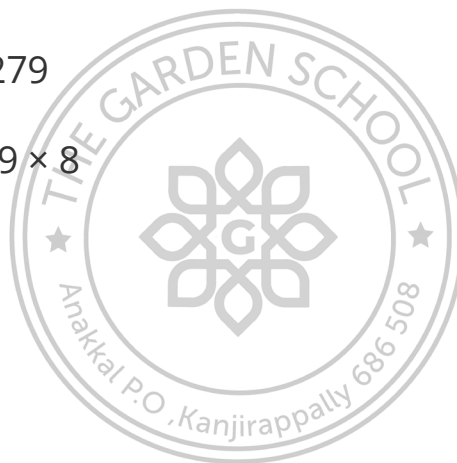
= 3845 × 5 × (782 + 218)

= 19225 × 1000

= 19225000

4. Find the product using suitable properties.

    (a) 738 × 103   (b) 854 × 102   (c) 258 × 1008   (d) 1005 × 168

Answer:

(a) 738 × 103

    = 738 × (100 + 3)

    = 738 × 100 + 738 × 3 (using distributive property)

    = 73800 + 2214

    = 76014

 (b) 854 × 102

    = 854 × (100 + 2)

    = 854 × 100 + 854 × 2 (using distributive property)

    = 85400 + 1708

    = 87108

(c) 258 × 1008

    = 258 × (1000 + 8)

    = 258 × 1000 + 258 × 8 (using distributive property)

    = 258000 + 2064

= 260064

(d) 1005 × 168

= (1000 + 5) × 168

= 1000 × 168 + 5 × 168 (using distributive property)

= 168000 + 840

= 168840

5. A taxidriver 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 ₹ 44 per litre, how much did he spend in all on petrol?

Answer:

The quantity of petrol filled on Monday = 40 litres

The quantity of petrol filled on Tuesday = 50 litres

Total quantity of petrol filled on both the days = (40 + 50) litres

Cost of petrol per litre = ₹ 44

Thus, total amount spent on petrol = 44 × (40 + 50)

= 44 × 90

= ₹ 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 ₹45 per litre, how much money is due to the vendor per day?

Answer:

The quantity of milk supplied in the morning = 32 litres

The quantity of milk supplied in the evening = 68 litres

Cost of milk per litre = ₹45

Thus, total cost of milk per day = 45 × (32 + 68)

$$= 45 × 100$$

$$= ₹ 4500$$

Hence, the money due to the vendor per day is ₹ 4500.

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

Answer:

   (i) 425 × 136 = 425 × (6 + 30 +100)   (c) Distributivity of multiplication over addition

   (ii) 2 × 49 × 50 = 2 × 50 × 49   (a) Commutativity under multiplication.

   (iii) 80 + 2005 + 20 = 80 + 20 + 2005   (b) Commutativity under addition.