

Mathematics

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(Chapter - 2) (Whole Numbers)
(Class - VI)

Exercise 2.2

Question 1:

Find the sum by suitable rearrangement:

(a) $837 + 208 + 363$

(b) $1962 + 453 + 1538 + 647$

Answer 1:

$$\begin{aligned} \text{(a)} \quad & 837 + 208 + 363 \\ &= (837 + 363) + 208 \\ &= 1200 + 208 \\ &= 1408 \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad & 1962 + 453 + 1538 + 647 \\ &= (1962 + 1538) + (453 + 647) \\ &= 3500 + 1100 \\ &= 4600 \end{aligned}$$

Question 2:

Find the product by suitable arrangement:

(a) $2 \times 1768 \times 50$

(b) $4 \times 166 \times 25$

(c) $8 \times 291 \times 125$

(d) $625 \times 279 \times 16$

(e) $285 \times 5 \times 60$

(f) $125 \times 40 \times 8 \times 25$

Answer 2:

$$\begin{aligned} \text{(a)} \quad & 2 \times 1768 \times 50 \\ &= (2 \times 50) \times 1768 \\ &= 100 \times 1768 \\ &= 176800 \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad & 4 \times 166 \times 25 \\ &= (4 \times 25) \times 166 \\ &= 100 \times 166 \\ &= 16600 \end{aligned}$$

$$\begin{aligned} \text{(c)} \quad & 8 \times 291 \times 125 \\ &= (8 \times 125) \times 291 \\ &= 1000 \times 291 \\ &= 291000 \end{aligned}$$

$$\begin{aligned} \text{(d)} \quad & 625 \times 279 \times 16 \\ &= (625 \times 16) \times 279 \\ &= 10000 \times 279 \\ &= 2790000 \end{aligned}$$

$$\begin{aligned} \text{(e)} \quad & 285 \times 5 \times 60 \\ &= 285 \times (5 \times 60) \\ &= 285 \times 300 \\ &= 85500 \end{aligned}$$

$$\begin{aligned} \text{(f)} \quad & 125 \times 40 \times 8 \times 25 \\ &= (125 \times 8) \times (40 \times 25) \\ &= 1000 \times 1000 \\ &= 1000000 \end{aligned}$$

Question 3:

Find the value of the following:

(a) $297 \times 17 + 297 \times 3$

(b) $54279 \times 92 + 8 \times 54279$

(c) $81265 \times 169 - 81265 \times 69$

(d) $3845 \times 5 \times 782 + 769 \times 25 \times 218$

Answer 3:

$$\begin{aligned} \text{(a)} \quad & 297 \times 17 + 297 \times 3 \\ &= 297 \times (17 + 3) \\ &= 297 \times 20 \\ &= 5940 \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad & 54279 \times 92 + 8 \times 54279 \\ &= 54279 \times (92 + 8) \\ &= 54279 \times 100 \\ &= 5427900 \end{aligned}$$

$$\begin{aligned} \text{(c)} \quad & 81265 \times 169 - 81265 \times 69 \\ &= 81265 \times (169 - 69) \\ &= 81265 \times 100 \\ &= 8126500 \end{aligned}$$

$$\begin{aligned} \text{(d)} \quad & 3845 \times 5 \times 782 + 769 \times 25 \times 218 \\ &= 3845 \times 5 \times 782 + 769 \times 5 \times 5 \times 218 \\ &= 3845 \times 5 \times 782 + 3845 \times 5 \times 218 \\ &= 3845 \times 5 \times (782 + 218) \\ &= 3845 \times 5 \times 1000 \\ &= 19225000 \end{aligned}$$

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Question 4:

Find the product using suitable properties:

(a) 738×103

(c) 258×1008

(b) 854×102

(d) 1005×168

Answer 4:

(a) 738×103

$= 738 \times (100 + 3)$

$= 738 \times 100 + 738 \times 3$

$= 73800 + 2214$

$= 76014$

(c) 258×1008

$= 258 \times (1000 + 8)$

$= 258 \times 1000 + 258 \times 8$

$= 258000 + 2064$

$= 260064$

(b) 854×102

$= 854 \times (100 + 2)$

$= 854 \times 100 + 854 \times 2$

$= 85400 + 1708$

$= 87108$

(d) 1005×168

$= (1000 + 5) \times 168$

$= 1000 \times 168 + 5 \times 168$

$= 168000 + 840$

$= 168840$

Question 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 ₹ 44 per litre, how much did he spend in all on petrol?

Answer 5:

Petrol filled on Monday = 40 litres

Petrol filled on next day = 50 litres

Total petrol filled = 90 litres

Now,

Cost of 1 litre petrol = ₹ 44

Cost of 90 litres petrol = 44×90

$= 44 \times (100 - 10)$

$= 44 \times 100 - 44 \times 10$

$= 4400 - 440$

$= ₹ 3960$

Therefore, he spent ₹ 3960 on petrol.

Question 6:

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

Answer 6:

Supply of milk in morning = 32 litres

Supply of milk in evening = 68 litres

Total supply = $32 + 68 = 100$ litres

Now

Cost of 1 litre milk = ₹15

Cost of 100 litres milk = $15 \times 100 = ₹1500$

Therefore, ₹1500 is due to the vendor per day.

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Question 7:

Match the following:

- | | |
|--|--|
| (i) $425 \times 136 = 425 \times (6 + 30 + 100)$ | (a) Commutativity under multiplication |
| (ii) $2 \times 48 \times 50 = 2 \times 50 \times 49$ | (b) Commutativity under addition |
| (iii) $80 + 2005 + 20 = 80 + 20 + 2005$ | (c) Distributivity multiplication under addition |

Answer 7:

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

