

Practice Paper - 1

Arithmetic Expressions

Duration: 1 $\frac{1}{2}$ hours

Max Marks: 40

SECTION – A (1 × 10 = 10 Marks)

1. Evaluate: $(36 \div 6 + 8) \times 2$

- (a) 28 (b) 32 (c) 40 (d) 44

2. Simplify: $75 - 5 \times 8 + 10$

- (a) 35 (b) 40 (c) 45 (d) 50

3. Calculate: $120 - (9 \times 4) + 16$

- (a) 88 (b) 90 (c) 100 (d) 110

4. Evaluate: $4 \times (15 - 7) + 6 \times (10 - 8)$

- (a) 44 (b) 48 (c) 52 (d) 56

5. Which is equal to $9 \times 7 - (21 \div 3)$?

- (a) $63 - 7$ (b) $9 \times (7 - 3)$ (c) $9 \times 7 - 3 \times 7$ (d) $63 \div 3$

6. Simplify: $144 \div (12 \times 2) + 35$

- (a) 41 (b) 43 (c) 47 (d) 49

7. Evaluate: $(64 \div 8) \times (45 \div 9)$

- (a) 32 (b) 40 (c) 45 (d) 48

8. Arrange in ascending order:

- (i) $60 - 25$ (ii) 7×6 (iii) $90 \div 3$ (iv) $50 - 10$

9. Assertion (A): $8 + 4 \times 6 = 72$

Reason (R): Multiplication is done before addition.

10. Assertion (A): In $25 + 30 \div 5$, division is done first.

Reason (R): Division has higher precedence than addition.

SECTION – B (2 × 4 = 8 Marks)

11. (a) Evaluate: $(81 \div 9) + 5 \times (8 - 6)$

(b) Simplify: $(15 \times 4) - (100 \div 10) + 25$

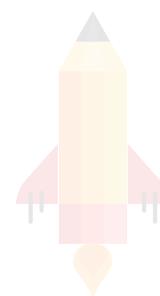
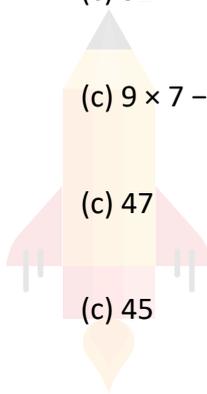
12. Arrange in increasing order:

$48 \div 6$, 5×9 , $72 - 50$, $19 + 11$, 36

13. Simplify: $240 \div (6 \times 5) + 45 - 15$

14. The sum of 125 and 75 is multiplied by 3 and then 150 is subtracted.

Write expression and evaluate.



SECTION – C (3 × 3 = 9 Marks)

15. A fruit seller sells 12 kg apples at ₹60/kg and 8 kg oranges at ₹45/kg.

Write expression and find total amount.

16. Evaluate: $1500 - [(96 - 48) \div 6 + 7 \times (20 - 15)]$

17. A student buys 10 pens at ₹15 each, 6 notebooks at ₹35 each, and 4 files at ₹50 each.

Write expression and find total cost.

SECTION – D (5 Marks)

18. A group of 20 students plans a movie outing.

Tickets cost ₹150 each.

Each student buys 1 popcorn at ₹60.

For every 4 students, 3 cold drinks are bought at ₹40 each.

(a) Write expression for total cost.

(b) Find total amount.

(c) Find contribution per student.

SECTION – E (4 × 2 = 8 Marks)

Case Study Based Questions

19. A school purchases:

20 trophies at ₹250 each

30 medals at ₹120 each

50 certificates at ₹25 each

School gets 10% discount on total.

(a) Write expression and calculate payable amount.

(b) If medals increase by ₹30 each, find new amount after discount.

20. A family buys:

5 pizzas at ₹220 each

6 juice bottles at ₹40 each

8 ice creams at ₹35 each

They get flat discount of ₹200.

(a) Write arithmetic expression and find payable amount.

(b) If pizza price increases by 5%, find new total after discount.

One Point Learning

One Point Learning

Answers**SECTION – A**

$$\begin{aligned}
 1. & (36 \div 6 + 8) \times 2 \\
 & = (6 + 8) \times 2 \\
 & = 14 \times 2 \\
 & = 28
 \end{aligned}$$

$$\begin{aligned}
 2. & 75 - 5 \times 8 + 10 \\
 & = 75 - 40 + 10 \\
 & = 35 + 10 \\
 & = 45
 \end{aligned}$$

$$\begin{aligned}
 3. & 120 - (9 \times 4) + 16 \\
 & = 120 - 36 + 16 \\
 & = 84 + 16 \\
 & = 100
 \end{aligned}$$

$$\begin{aligned}
 4. & 4 \times (15 - 7) + 6 \times (10 - 8) \\
 & = 4 \times 8 + 6 \times 2 \\
 & = 32 + 12 \\
 & = 44
 \end{aligned}$$

$$\begin{aligned}
 5. & 9 \times 7 - (21 \div 3) \\
 & = 63 - 7 \\
 & = 56
 \end{aligned}$$

Correct option: (a)

$$\begin{aligned}
 6. & 144 \div (12 \times 2) + 35 \\
 & = 144 \div 24 + 35 \\
 & = 6 + 35 \\
 & = 41
 \end{aligned}$$

$$\begin{aligned}
 7. & (64 \div 8) \times (45 \div 9) \\
 & = 8 \times 5 \\
 & = 40
 \end{aligned}$$

8. Values:

$$60 - 25 = 35$$

$$7 \times 6 = 42$$

$$90 \div 3 = 30$$

$$50 - 10 = 40$$

Ascending: 30, 35, 40, 42

9. Assertion: $8 + 4 \times 6 = 72$

Actual: $8 + 24 = 32$

Assertion is false

Reason is true

Answer: (d)

$$\begin{aligned}
 10. & 25 + 30 \div 5 \\
 & = 25 + 6
 \end{aligned}$$

Division done first \rightarrow True

Reason correct

Answer: (a)

SECTION – B

11.

$$\begin{aligned}
 (a) & (81 \div 9) + 5 \times (8 - 6) \\
 & = 9 + 5 \times 2 \\
 & = 9 + 10 \\
 & = 19
 \end{aligned}$$

$$\begin{aligned}
 (b) & (15 \times 4) - (100 \div 10) + 25 \\
 & = 60 - 10 + 25 \\
 & = 75
 \end{aligned}$$

12.

$$48 \div 6 = 8$$

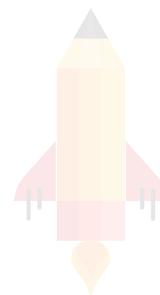
$$5 \times 9 = 45$$

$$72 - 50 = 22$$

$$19 + 11 = 30$$

36

Ascending: 8, 22, 30, 36, 45



$$\begin{aligned}
 13. & 240 \div (6 \times 5) + 45 - 15 \\
 & = 240 \div 30 + 45 - 15 \\
 & = 8 + 45 - 15 \\
 & = 38
 \end{aligned}$$

$$\begin{aligned}
 14. & \\
 \text{Expression:} & (125 + 75) \times 3 - 150 \\
 & = 200 \times 3 - 150 \\
 & = 600 - 150 \\
 & = 450
 \end{aligned}$$

SECTION – C

$$\begin{aligned}
 15. & \\
 & 12 \times 60 + 8 \times 45 \\
 & = 720 + 360 \\
 & = ₹1080
 \end{aligned}$$

$$\begin{aligned}
 16. & \\
 & 1500 - [(96 - 48) \div 6 + 7 \times (20 - 15)] \\
 & = 1500 - [48 \div 6 + 7 \times 5] \\
 & = 1500 - [8 + 35] \\
 & = 1500 - 43 \\
 & = 1457
 \end{aligned}$$

$$\begin{aligned}
 17. & \\
 & 10 \times 15 + 6 \times 35 + 4 \times 50 \\
 & = 150 + 210 + 200 \\
 & = ₹560
 \end{aligned}$$

SECTION – D

$$\begin{aligned}
 18. & \\
 \text{Tickets:} & 20 \times 150 = 3000 \\
 \text{Popcorn:} & 20 \times 60 = 1200 \\
 \text{Cold drinks:} & \\
 20 \text{ students} & \rightarrow 5 \text{ groups of } 4 \\
 \text{Each group buys } & 3 \text{ drinks} \\
 \text{Total drinks} & = 5 \times 3 = 15 \\
 15 \times 40 & = 600
 \end{aligned}$$

$$\begin{aligned}
 \text{Total} & = 3000 + 1200 + 600 = 4800 \\
 \text{Per student} & = 4800 \div 20 = ₹240
 \end{aligned}$$

SECTION – E

$$\begin{aligned}
 19. & \\
 \text{Trophies:} & 20 \times 250 = 5000 \\
 \text{Medals:} & 30 \times 120 = 3600 \\
 \text{Certificates:} & 50 \times 25 = 1250 \\
 \text{Total} & = 9850
 \end{aligned}$$

$$\begin{aligned}
 10\% \text{ discount} & = 985 \\
 \text{Payable} & = 9850 - 985 = 8865
 \end{aligned}$$

$$\begin{aligned}
 \text{If medals increase by } ₹30: & \\
 \text{New medal price} & = 150 \\
 30 \times 150 & = 4500 \\
 \text{New total} & = 5000 + 4500 + 1250 = 10750 \\
 10\% \text{ discount} & = 1075 \\
 \text{Payable} & = 9675
 \end{aligned}$$

$$\begin{aligned}
 20. & \\
 \text{Pizza:} & 5 \times 220 = 1100 \\
 \text{Juice:} & 6 \times 40 = 240 \\
 \text{Ice cream:} & 8 \times 35 = 280 \\
 \text{Total} & = 1620 \\
 \text{After } ₹200 \text{ discount} & = 1420
 \end{aligned}$$

$$\begin{aligned}
 \text{If pizza increases } 5\%: & \\
 220 \times 5\% & = 11 \\
 \text{New price} & = 231 \\
 5 \times 231 & = 1155 \\
 \text{New total} & = 1155 + 240 + 280 = 1675 \\
 \text{After discount} & = 1475
 \end{aligned}$$