

## 2

## Arithmetic Expressions

## Short Answer Questions

1. What is the value of  $25 + 17$ ?
2. Evaluate  $48 \div 6$ .
3. Write the terms of  $83 - 14$ .
4. Find the value of  $6 \times 9$ .
5. Is  $14 + 3 > 15 + 1$ ?
6. Write  $52 - 9$  as addition of integers.
7. What is the value of  $100 - (25 + 5)$ ?
8. Evaluate  $12 \times 4 - 10$ .
9. Identify the terms in  $6 \times 5 + 3$ .
10. Remove brackets:  $45 - (10 + 5)$ .
11. Find the value of  $(8 + 2) \times 5$ .
12. Evaluate  $36 - 9 + 4$ .
13. Is  $7 \times (4 + 3)$  equal to  $7 \times 4 + 7 \times 3$ ?
14. Write inverse of  $-15$ .
15. Evaluate  $20 - (6 - 2)$ .

## Fill in the Blanks

1.  $34 + (6 - 4) = 34 + 6$  \_\_\_ 4
2.  $50 - (20 + 5) = 50$  \_\_\_ 20 \_\_\_ 5
3.  $3 \times (7 + 2) = 3 \times 7$  \_\_\_  $3 \times 2$
4.  $(9 + 4) \times 5 = 9 \times 5$  \_\_\_  $4 \times 5$
5.  $72 \div 8 =$  \_\_\_
6.  $6 \times (10 - 3) = 6 \times 10$  \_\_\_  $6 \times 3$
7.  $45 - (12 - 5) = 45$  \_\_\_ 12 \_\_\_ 5
8.  $8 + (-3) =$  \_\_\_
9.  $90 - 45 =$  \_\_\_
10.  $5 \times (9 - 4) =$  \_\_\_
11.  $64 \div 8 + 6 =$  \_\_\_
12.  $100 - (30 + 20) =$  \_\_\_

13.  $(7 + 5) - 3 =$  \_\_\_
14.  $6 \times 4 + 3 \times 4 = (\text{___} + \text{___}) \times 4$
15.  $15 - (6 + 2) =$  \_\_\_
16.  $14 + (8 - 3) =$  \_\_\_
17.  $36 - 6 - 4 = 36 - (\text{___} + \text{___})$
18.  $3 \times 12 =$  \_\_\_
19.  $25 \times 4 =$  \_\_\_
20.  $81 \div 9 =$  \_\_\_

## True or False

1.  $5 \times (4 + 3) = 5 \times 4 + 3$ .
2.  $24 - (6 + 4) = 24 - 6 - 4$ .
3.  $7 + 8 = 8 + 7$ .
4.  $10 - (3 - 2) = 10 - 3 - 2$ .
5.  $4 \times (5 - 2) = 4 \times 5 - 4 \times 2$ .
6. Addition is associative.
7. Subtraction is commutative.
8.  $3 \times 4 + 2 \times 4 = (3 + 2) \times 4$ .
9.  $50 - (20 + 5) = 25$ .
10.  $(6 + 3) \times 4 = 6 \times 4 + 3 \times 4$ .
11. Removing brackets after minus changes signs.
12.  $100 - (50 - 10) = 60$ .
13.  $8 \times (3 + 2) = 8 \times 3 + 8 \times 2$ .
14.  $20 - 5 + 2 = 17$ .
15.  $9 \times 0 = 9$ .

## Evaluate the Following

1.  $45 + 28 - 16$
2.  $72 \div 8 + 9$
3.  $5 \times 12 - 8$

4.  $36 - (8 + 4)$
5.  $6 \times (9 - 3)$
6.  $84 - 12 \times 3$
7.  $(50 - 10) \div 5$
8.  $4 \times 7 + 3 \times 7$
9.  $100 - (25 - 5)$
10.  $90 \div 10 + 15$
11.  $15 \times 6 - 20$
12.  $(18 + 12) \div 5$
13.  $64 - 4 \times 8$
14.  $8 \times 9 - 7 \times 9$
15.  $5 \times (6 + 4)$
16.  $48 - 6 + 12$
17.  $9 \times (5 - 2)$
18.  $36 \div 6 + 8$
19.  $75 - (20 + 10)$
20.  $4 \times (8 + 2)$
2. Rina bought 5 notebooks at ₹18 each and paid ₹100. How much change will she get back?
3. A class has 4 rows with 9 students each. How many students are there in total?
4. A train ticket costs ₹40 for adult and ₹20 for child. Find cost for 3 adults and 2 children.
5. A boy saves ₹200 every month. How much he saves in 6 months?
6. A box contains 12 packets with 6 chocolates each. Find total chocolates.
7. A farmer plants 7 rows with 15 plants each. Find total plants.
8. A snail climbs 4 cm up and slips 1 cm down daily. What is net climb per day?
9. A book costs ₹250. A student gets ₹30 discount. What is final price?
10. A factory produces 125 toys daily. How many toys will be produced in 8 days?

### HOTS (Higher Order Thinking Skills)

#### Compare Using $<$ , $>$ or $=$

1.  $45 - 8$  \_\_\_  $45 - 10$
2.  $6 \times 9$  \_\_\_  $9 \times 6$
3.  $5 \times (7 + 3)$  \_\_\_  $5 \times 7 + 5 \times 3$
4.  $90 - (20 + 5)$  \_\_\_  $90 - 20 - 5$
5.  $(12 + 8) \times 4$  \_\_\_  $12 \times 4 + 8 \times 4$
6.  $100 - (40 - 10)$  \_\_\_  $100 - 40 + 10$
7.  $4 \times (9 - 2)$  \_\_\_  $4 \times 9 - 4 \times 2$
8.  $63 \div 9$  \_\_\_  $81 \div 9$
9.  $6 + 8 - 3$  \_\_\_  $6 + (8 - 3)$
10.  $25 \times (4 + 6)$  \_\_\_  $25 \times 4 + 25 \times 6$

#### Word Problems

1. A shopkeeper sells 8 pens each costing ₹12. Find total cost.

1. Without calculation, compare:  $83 - 17 + 1$  and  $83 - 17 - 1$ .
2. Find a quick way to calculate  $99 \times 15$ .
3. Explain why  $5 \times 4 + 3 \neq 5 \times (4 + 3)$ .
4. Rearrange  $7 + 8 - 5 + 2$  in different ways to simplify.
5. Find value of  $1 - 2 + 3 - 4 + 5 - 6 + 7 - 8$ .
6. Using distributive property, calculate  $104 \times 12$ .
7. Remove brackets:  $200 - (50 - 20)$ .
8. Create two different expressions having value 36.
9. Find missing number:  $423 + \underline{\quad} = 419 + 20$ .
10. Using only 2, 3 and 5 once each, create expressions to get 10.

**Answers****Short Answer**

- 42
- 8
- 83, -14
- 54
- No ( $17 = 16$ ? Actually  $14+3=17$  and  $15+1=16 \rightarrow$  Yes,  $17 > 16$ )
- $52 + (-9)$
- 70
- 38
- $6 \times 5$  and 3
- 30
- 50
- 31
- Yes
- 15
- 16

**Fill in the Blanks**

- 
- , -
- +
- +
- 9
- 
- , +
- 5
- 45
- 25
- 14
- 50
- 9
- 6, 3
- 7
- 19
- 6, 4
- 36
- 100
- 9

**True or False**

- False
- True

- True
- False
- True
- True
- False
- True
- True
- True
- True
- True
- True
- False
- True
- True
- False

**Evaluate the Following**

- 57
- 18
- 52
- 24
- 36
- 48
- 8
- 49
- 80
- 24
- 70
- 6
- 32
- 9
- 50
- 54
- 27
- 14
- 45
- 40

**Compare Using  $<$ ,  $>$  or  $=$** 

- $>$
- $=$
- $=$
- $=$
- $=$
- $=$
- $=$

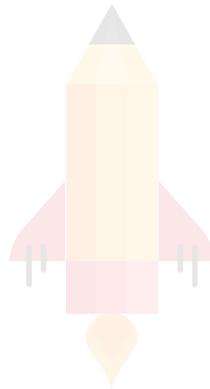
- $<$
- $=$
- $=$

**Word Problems**

- ₹96
- ₹10
- 36 students
- ₹160
- ₹1200
- 72 chocolates
- 105 plants
- 3 cm
- ₹220
- 1000 toys

**HOTS**

- $83 - 17 + 1$  is 2 more than  $83 - 17 - 1$  (67 and 65)
- $99 \times 15 = (100 - 1) \times 15$   
 $= 1500 - 15 = 1485$
- Because  $5 \times 4 + 3 = 23$ ,  
but  $5 \times (4 + 3) = 35$
- $(7 + 8) + (-5 + 2) = 15 - 3 = 12$
- 4
- $104 \times 12 = (100 + 4) \times 12$   
 $= 1200 + 48 = 1248$
- 170
- Example:  
 $6 \times 6 = 36$   
 $40 - 4 = 36$
- 16
- Example:  
 $5 \times 2 - 3 = 7$  (Not 10)  
Correct example:  $5 + 3 + 2 = 10$



One Point Learning

