



परमाणु ऊर्जा शिक्षण संस्था
Atomic Energy Education Society
कार्यपत्रक / Worksheet (2025-26)

कक्षा/Class: VII विषय/Subject: Mathematics माह/ Month: June अंक/Marks: 40

दिया गया पाठ्यक्रम/Portion covered: Chapter 02(Arithmetic Expressions)

विद्यार्थी/Name of the student: _____

अनुक्रमांक/Roll No. _____ कक्षा/अनुभाग Class /Sec.: _____ दिनांक /Date: _____

SECTION- A (10×1= 10 marks)

1. What is the value of the expression: $5 + 3 \times 2$?

- A) 11 B) 16 C) 13 D) 8

2. Which operation is performed first in the expression: $4 + 6 \div 3 \times 2 - 1$?

- A) Addition B) Subtraction C) Multiplication D) Division

3. What is the value of $(8 + 4) \times 3 - 6$?

- A) 42 B) 18 C) 30 D) 36

4. Simplify: $15 - 3 \times 2 + 4$

- A) 19 B) 13 C) 9 D) 10

5. Which expression is equivalent to: $6 \times (4 + 2)$?

- A) $6 \times 4 + 2$ B) $6 + 4 \times 2$ C) 6×6 D) $6 + 4 + 2$

6. What is the correct order of operations in arithmetic expressions?

- A) Addition, Subtraction, Multiplication, Division B) Division, Multiplication, Addition, Subtraction
C) BODMAS D) BAMOD

7. Evaluate: $24 \div (4 \times 2) + 1$

- A) 3 B) 2 C) 4 D) 1

8. Simplify: $(12 \div 4) + (3 \times 2)$

- A) 9 B) 6 C) 8 D) 12

9. If $x = 3$, what is the value of the expression: $2x + 5$?

- A) 11 B) 10 C) 9 D) 8

10. Which of the following is an arithmetic expression?

- A) $4x + y = 10$ B) $3 + 7 \times 2$ C) $x > 5$ D) (a, b)

SECTION- B(04×02= 08 marks)

11. Simplify the expression:

$8 + 6 \times (5 - 3)$

12. Write and simplify an expression for:

The sum of twice a number and 7, if the number is 6.

13. Compare using $<$, $>$ or $=$ without complicated calculations :

$102 - 48$ and $100 - 45$

14. Use brackets to make the following expression correct: $14 - 5 + 3 = 6$

SECTION – C(03×03= 09 marks)

15. A store sells 15 boxes of cookies. Each box contains 6 chocolate chip cookies and 4 peanut butter cookies. How many cookies are there in total?

16. Fill in the blanks to make the equations true:

1. $10 \times 2 = 5 \times \underline{\hspace{2cm}}$

2. $80 - \underline{\hspace{2cm}} = 25$

3. $\underline{\hspace{2cm}} + 9 = 100 \div 2$

4. $5 \times \underline{\hspace{2cm}} = 15 + 15$

17. Shreya bought 12 cupcakes from a bakery. The cost of each cupcake is ₹ 20. The baker gave her a discount of ₹ 18 on the total cost. Find the total amount that she has to pay to the baker.

SECTION D(02×04= 08 marks)

18. Read the following text carefully and answer the questions that follow:

Irfan went shopping with ₹ 100. He bought a packet of biscuits for ₹ 15 and a packet of toor dal for ₹ 56. To find out how much money he would get back, Irfan wrote the expression $100 - 15 + 56$. When he calculated it, he got ₹ 141, which didn't make sense because it was more than what he had. Then he realized his mistake - both ₹ 15 and ₹ 56 were expenses, so they needed to be added first and subtracted from ₹ 100. He corrected the expression to $100 - (15 + 56)$. Using this, he calculated the total cost to be ₹ 71 and found that he would get back ₹ 29. This situation helped him understand the importance of brackets and order of operations in evaluating complex expressions correctly. Brackets ensure that related quantities (like expenses) are grouped together and calculated before other operations.

Questions:

1. What was the incorrect expression Irfan wrote first? (1)

2. Why was the result ₹ 141 incorrect in Irfan's first calculation? (1)

3. Rewrite the correct expression using brackets and explain why it's correct. Evaluate it. (2)

OR

If Irfan also bought a chocolate for ₹ 10, write the updated expression using brackets and find how much money he would get back. (2)

19. Read the following text carefully and answer the questions that follow:

Mallesha brought 30 marbles to the playground. Arun brought 5 bags, each containing 4 marbles, giving him a total of $5 \times 4 = 20$ marbles. To find the total number of marbles, Mallesha wrote the expression: $30 + 5 \times 4$. Purna, without understanding the context or the rule of order of operations, calculated it as: $(30 + 5) \times 4 = 35 \times 4 = 140$. Mallesha, however, followed the correct order of operations (BODMAS/BIDMAS), where multiplication is performed before addition. So, he correctly calculated: $5 \times 4 = 20$, then $30 + 20 = 50$.

This case highlights the importance of understanding the correct sequence of operations in arithmetic expressions. It also demonstrates that the placement of operations affects the outcome, and following standard mathematical rules is essential to arrive at the correct answer.

Questions:

1. How many marbles did Arun bring in total? (1)

2. What is the correct value of the expression $30 + 5 \times 4$ using the BODMAS rule? (1)

3. Explain why Purna's answer of 140 is incorrect when evaluating the expression $30 + 5 \times 4$. (2)

OR

Write a new arithmetic expression involving both addition and multiplication where applying BODMAS gives a different result than solving it from left to right. Solve it using the correct order. (2)

SECTION- E(01×05= 05 marks)

20. A car parking ticket at the amusement park costs ₹ 150 on Saturdays and Sundays and ₹ 100 on weekdays. The total parking ticket sale was worth ₹ 250,000. Write an equation to represent the situation algebraically.