



INDIAN SCHOOL AL WADI AL KABIR
Class VII, Mathematics
WORKSHEET (2026-27)
EXPRESSION WITH LETTER NUMBERS

DESCRIPTIVE TYPE QUESTIONS

- Q.1** Write an algebraic expression for each of the following:
 a) 7 more than a number x
 b) 5 times a number y , decreased by 3
 c) The sum of a and b , multiplied by 4
 d) 10 less than twice a number p
- Q.2** A notebook costs ₹ x and a pen costs ₹ y . Riya buys 3 notebooks and 2 pens. Write an algebraic expression for the total cost.
- Q.3** Simplify the following expressions by collecting like terms
 a) $5x + 3x + 7$
 b) $8a - 3a + 4$
 c) $6p + 2q - 3p + 5q$
- Q.4** A shopkeeper sells x kg of sugar at ₹50 per kg and y kg of rice at ₹40 per kg. He spent ₹20 on transport. Write an algebraic expression for his total cost.
- Q.5** Study the given patterns and complete the table that follows:
 (a) 
- | | | | | | | |
|-----------------------------------|---|---|---|---|----|-----|
| Number of figures formed | 1 | 2 | 3 | 4 | 25 | n |
| Number of matchsticks used | | | | | | |
- Q.6** Add $3x - y + z$, $2y - 5z$ and $3z - 4x$
- Q.7** Write expression for the following:
 Take Ruhi's present age to be x years.
 (a) What will be her age after 7 years from now?
 (b) What was her age 4 years back?

	(c) Ruhi's grandfather is 7 times her age. What is the age of her grandfather? (d) Grandmother is 3 years younger than grandfather. What is grandmother's age? (e) Ruhi's father's age is 3 years more than 4 times Ruhi's age. What is her father's age?
Q.8	Price of sugar per kg is ₹ m . If the price of rice is ₹ 11 more than 2 times of the price of sugar, what will be the price of rice?
Q.9	A triangle has three side lengths given by the expressions: $(3x + 2)$, $(5x - 1)$, and $(2x + 4)$. find the perimeter of triangle
Q.10	Lina has $(8a - 5b + 5)$ stickers. After giving some stickers to her friend, she is left with $(3a - 2b - 3)$ stickers. Write an algebraic expression for the number of stickers she gave away.
Q.11	Charu has been through three rounds of a quiz. Her scores in the three rounds are $7p - 3q$, $8p - 4q$, and $6p - 2q$. Find her total score.
Q.12	Subtract $2p + 3q + 7$ from $3p - 8q - 5$
Q.13	Simplify by combining like terms : $7a - 5b + 2b - 9a + 3b - 2a + 5b$
Q.14	Radha is preparing for a cycling race and practices daily. The first week she cycles 5 km every day. Every week she increases the daily distance cycled by 'z' km. How many kilometers would Radha have cycled after 3 weeks?
Q.15	Case Study: A travel agent offers different packages for a trip. The cost of one person's travel is ₹c, and the cost of one night's stay is ₹n. The agent charges an additional service fee of ₹100 for each booking. (a) Write an expression for the total cost for a group of 5 people staying for 3 nights (b) If the travel cost per person is ₹2000 and the stay cost per night is ₹1500, what is the total cost for a group of 4 people staying for d nights?



ANSWERS:

Q1	a) $x+7$ b) $5y-3$ c) $4(a+b)$ d) $2p-10$	Q2	$3x + 2y$	Q3	a) $8x + 7$ b) $5a+4$ c) $3p+7q$	Q4	$50x + 40y + 20$
Q5	$3n+2$	Q6	$-x+y-z$	Q7	a) $x+7$ b) $x-4$ c) $7x$ d) $7x-3$ e) $4x + 3$	Q8	$2m + 11$
Q9	$10x + 5$	Q10	$5a - 3b + 8$	Q11	$21p - 9q$	Q12	$p-11q-12$
Q13	$-4a + 5b$	Q14	$(7 \times 5) + 7(5+z) + 7(5+2z) = 105 + 21z$	Q15	a) $5c+3n+100$ b) $1500d + 8100$		