

**AHLCON PUBLIC SCHOOL, MAYUR VIHAR PHASE-1,
DELHI-91 ASSIGNMENT (TERM-II)**

CLASS: VII

SUBJECT: MATH

TOPIC: Ch 12-ALGEBRAIC EXPRESSION

INSTRUCTIONS: Do the following in the practice register.

Q1 Identify the like /unlike terms:

a) $3x^2, -5x^2, 34x^2$

b) $5xy, 6y, 1x$

c) $-9p^2qx, -9xq^2p$

Q2 Simplify and classify the answers as Monomial, Binomial, or Trinomial:

a) $9x^2y + yx^2 + 8xy - 9xy^2 + 3xy$

b) $8a^2 - 16b^2 - (b^2 - a^2)$

c) $5(3x + 4 - y) + 20 - y - 2x$

d) $\frac{-1}{2}(2a^2 + 3b - 7ab + 5b^2) - \frac{2}{3}(4a^2 + 7b^2)$

Q3 Write algebraic expression for each of the following cases:

a) Perimeter of square added to area of square of each side x units.

b) Two times 9 subtracted from product of y and z.

Q4 Find the sum:

a) $15m - 6n, 7n - 12m, 2n, -4m$

b) $x^2 + 2x^2y^2, 3x^2 + 5xy, 3y^2$

Q5 Subtract:

a) $(a - b)$ from $b - (a - b)$

b) $6z^2 - 8xz + 9$ from $24xz - 4z^2 + 2$

Q7 From the sum of $7 + x + x^2$ and $9 - x - x^2$ subtract $10 - x - 2x^2$.

Q8 If $A = 3x^2 - 4x + 1$, $B = 5x^2 + 3x - 8$ and $C = 4x^2 - 7x + 3$ then find:

- i) $(A + B)$
- ii) $B + C - A$
- iii) $A + B + C$

Q9 Write the terms and factors of the following expressions using tree diagram:

$$7x^2y - 3xyz + 4yz^2 - 9yz + 8$$

Q10 Find the values of following polynomials for $a = -2$, $b = 3$

i) $a^2 + 2ab + b^2$

ii) $a^2 + b^2 - ab - b^2 - a^2$

iii) $\frac{a}{b} + \frac{b}{a}$

iv) $\frac{a^2 - b^2}{3}$