

VIII - Mathematics Assignment No-01-Algebraic Expressions and Identities

Q1. Classify the following as monomials, binomials and trinomials.

(a)  $3n - 7$

(b)  $\frac{4}{3}n^2 + 3n - 5$

(c)  $-10n$

(d)  $\frac{2}{7}n^2 + 3n + 15$

(e)  $3n^2y^3$

(f)  $\frac{3}{5}abcd$

Q2. Write the degree of each of the following expressions.

(a)  $10n$

(b)  $10n^2 + 5n + 6$

(c)  $3n^4 - 5n^3 + 7$

(d)  $4n^2y - 3ny^2 + sy^3 + n^6$

Cont Pg-2



Q3. Write the coefficient of  $x^2$  from the following expressions.

(a)  $3x + 5$

(b)  $-4x^2 + 5x - 6$

(d)  $x^3 - 3x^2 + 2x - 9$

(e)  $x^4 + x^3 + x^2 - 3$

Q4. Arrange the following polynomials in descending order.

(a)  $5x^2 - 5x^3 + 5x^6 - 5x^5 + 5x^4 + 5x + 5$

(b)  $5x^2y - 4xy + 6xy^4$

Q5. Arrange the following polynomials in ascending order.

(a)  $6 + x^2 - 5x + 6x^3$

(b)  $4x^2y + 5xy^3 - 12x^2y^2 + 15$

Q6. Add

$(a+b+c)$ ,  $2a-b-c$  and  $-a+b+c$

Cont Pg 3



Q7. Add the following Polynomials.

(a)  $2a+3b+c+d$ ,  $-a+b-c-d$  and  
 $3a-4b-2c-2d$

(b)  $3m^2+4mn-5n^2$ ,  $-m^2+2n^2-6mn$   
and  $3mn-n^2$  and  $3m^2+4n^2-mn$

Q8. Subtract

(a)  $-7x^3+8x-9$  from  $2x^3-8x^2+9x-10$   
(b)  $-x^4+4x^3y-6x^2y^2+4xy^3-y^4$  from  
 $-5x^3y+x^2y^2-6y^4$ .

Q9. Subtract the sum of  $(a+b+c)$  and  
 $2a-b+2c$  from  $3a-b+3c$

Q10. Add  $\frac{2}{3}x^3 - \frac{1}{3}x^2 + \frac{5}{6}x + 7$  and  $\frac{4}{3}x^3 - \frac{2}{3}x^2 - \frac{1}{3}x + 1$

ANSWERS:-

(Q1)(a) Binomial	(Q3)(a) 0	(Q5)(a) $6-5x+x^2+6x^3$
(b) Trinomial	(b) -4	(b) $15+5xy^3+4x^2y-12x^2y^2$
(c) "	(c) -3	(Q6) $2a+b+c$
(d) Monomial	(d) 1	(Q7) $4a-2c-2d$
(e) "	(Q8) $5x^6-5x^5+5x^4-5x^3+5x^2+5x+5$	(Q8)(b) $5m^2$
(f) "		(Q8)(a) $9x^3-8x^2+x-1$
(Q2)(a) 1	(d) 6	(b) $x^4-9x^3y+7x^2y^2-4xy^3-5y^4$
(b) 2	(b) $5x^2y-4xy$	(Q9) -b
(c) 4	(c) $+6xy^4$	(Q10) $2x^3-n^2+\frac{1}{2}n+8$