

(iv)	abc	Monomial
(v)	$x^2 + 2xy + y^2$	trinomial
(vi)	$(-a)^3$	Monomial
(vii)	$l - m$	Binomial
(viii)	$7a^2 - b^2$	Binomial
(ix)	$lm + mn + nl$	Trinomial
(x)	$2a - 3b - 4c$	Trinomial
(xi)	$11x^2y^2$	Monomial
(xii)	$a^3 + a^2b + ab^2$	Trinomial.

•X• ————— •X•

Q#3:

$$1^{\text{st}} \text{ poly.} = x^7 + x^5 + x^3 - 1$$

$$2^{\text{nd}} \text{ poly.} = x^7 - x^6 + x^5 - x^4 + x^3 - x^2 + x + 1$$

$$\text{Required Poly.} = 2^{\text{nd}} \text{ poly.} - 1^{\text{st}} \text{ poly.}$$

$$= (x^7 - x^6 + x^5 - x^4 + x^3 - x^2 + x + 1) - (x^7 + x^5 + x^3 - 1)$$

$$= x^7 - x^6 + x^5 - x^4 + x^3 - x^2 + x + 1 - x^7 - x^5 - x^3 + 1$$

$$= -x^6 - x^4 - x^2 + x + 2 \quad \text{Ans.}$$

$$Q\#4: 1^{\text{st}} \text{ poly.} = 5x^4y^3 + 2x^3y^2 + x^2y - 9$$

$$2^{\text{nd}} \text{ poly.} = 2x^4y^3 - x^3y^2 - 3x^2y - 4$$

$$\text{Required poly.} = 2^{\text{nd}} \text{ poly.} - 1^{\text{st}} \text{ poly.}$$

$$= (2x^4y^3 - x^3y^2 - 3x^2y - 4) - (5x^4y^3 + 2x^3y^2 + x^2y - 9)$$

$$= 2x^4y^3 - x^3y^2 - 3x^2y - 4 - 5x^4y^3 - 2x^3y^2 - x^2y + 9$$

$$= -3x^4y^3 - 3x^3y^2 - 4x^2y + 5 \quad \text{Ans.}$$

$$Q\#5: \text{Required poly.} = 2^{\text{nd}} \text{ poly.} - 1^{\text{st}} \text{ poly.}$$

$$= (3x^5y^5 + 7x^3y^3 - 11xy + 19) - (5x^5y^5 - 3x^3y^3 + 10xy - 9)$$

$$= 3x^5y^5 + 7x^3y^3 - 11xy + 19 - 5x^5y^5 + 3x^3y^3 - 10xy + 9$$

$$= -2x^5y^5 + 10x^3y^3 - 21xy + 28 \quad \text{Ans.}$$

Ex #8.2

Pg. 2

$$\begin{aligned}
 \text{(ii)} \quad B - C &= (-2x + y + z) - (x + y - 2z) \\
 &= -2x + y + z - x - y + 2z \\
 &= -3x + 3z \quad \text{Ans.}
 \end{aligned}$$

$$\begin{aligned}
 \text{(iii)} \quad C - A &= (x + y - 2z) - (x - 2y + z) \\
 &= x + y - 2z - x + 2y - z \\
 &= 3y - 3z \\
 &= 3(y - z) \quad \text{Ans.}
 \end{aligned}$$

$$\begin{aligned}
 \text{(iv)} \quad A - B - C &= (x - 2y + z) - (-2x + y + z) - (x + y - 2z) \\
 &= x - 2y + z + 2x - y - z - x - y + 2z \\
 &= 2x - 4y + 2z \quad \text{Ans.}
 \end{aligned}$$

$$\begin{aligned}
 \text{(v)} \quad A + B - C &= (x - 2y + z) + (-2x + y + z) - (x + y - 2z) \\
 &= x - 2y + z - 2x + y + z - x - y + 2z \\
 &= -2x - 2y + 4z \quad \text{Ans.}
 \end{aligned}$$

$$\begin{aligned}
 \text{(vi)} \quad A - B + C &= (x - 2y + z) - (-2x + y + z) + (x + y - 2z) \\
 &= x - 2y + z + 2x - y - z + x + y - 2z \\
 &= 4x - 2y - 2z \quad \text{Ans.}
 \end{aligned}$$

•X• ————— •X•

Exercise # 8.2

Pg. 1.

Q#1: Add the following

(i) first we write like terms

$$\begin{array}{r} x^2 + 2xy + y^2 \\ x^2 - 2xy + y^2 \\ \hline 2x^2 + 2y^2 \end{array}$$

(ii) Arrange like terms first

$$\begin{array}{r} x^3 + 3x^2y - 2xy^2 + y^3 \\ 2x^3 - 5x^2y - 3xy^2 - 2y^3 \\ \hline 3x^3 - 2x^2y - 5xy^2 - y^3 \end{array}$$

(iii)

$$\begin{array}{r} a^5 + a^3b - 2ab^3 + b^3 \\ 4a^5 + 3a^3b + 2ab^3 + 6b^3 \\ \hline 5a^5 + 4a^3b + 7b^3 \end{array}$$

(iv)

$$\begin{array}{r} 2x^4y - 4x^3y^2 + 3x^2y^2 - 7xy^4 \\ x^4y - 4x^3y^2 - 3x^2y^2 + 8xy^4 \\ \hline 3x^4y - 8x^3y^2 + xy^4 \end{array}$$

Q#2: If

$$\begin{aligned} A &= x - 2y + z \\ B &= -2x + y + z \\ C &= x + y - 2z \end{aligned}$$

(i) $A - B = x - 2y + z - (-2x + y + z)$

$$\begin{aligned} &= x - 2y + z + 2x - y - z \\ &= 3x - 3y = 3(x - y) \end{aligned}$$

7th Class (Maths)

Unit # 8

Ex # 8.1

Q#1. Add the terms

(i) $2ab, 3bc, ca$

Sol: $2ab + 3bc + ca$

(ii) $7l^2, 3m^2, -8$

Sol: $7l^2 + 3m^2 - 8$

(iii) $p^2, -q^2, -r^2$

Sol: $p^2 - q^2 - r^2$

(iv) $5xy, 2yz, -8xy$

Sol: $5xy + 2yz - 8xy$

(v) $-2ab, a, -bc, c$

Sol: $2ab + a - bc + c$

(vi) $9lm, 8mn, -10ml, -2$

Sol:

$9lm + 8mn - 10ml - 2$

Q#2: Write constants & Variables

(i) $x + 3$

Constant: 3

Variable: x

(ii) $3a + b - 2$

Const: -2

variable: a, b

(iii) $l^2 + m^2 + n^2$

constant: No

Variable: l, m, n

(iv) $5a$

Constant: No.

Variable: a

(v) $2x^2 - 1$

Constant: -1

Variable: x

(vi) $3l^2 - 4n^2$

Constant: No

Variable: l, m

Q#3: Identify

(i) $x + y - z$

trinomial

(ii) $-6l$

Monomial

(iii) $2x^2 - 3$

Binomial