Ex - $a \times a \times a \times a = a^4$

HW 20, 21, 22 Ex - 18 (B)

1. Separate the constant and the variables from each of the following -

Constant - $6, \frac{5}{4}, 0$

Variables - $4y, -3x, \frac{4}{5}xy, az, 7p, \frac{9x}{y}, \frac{8}{4x}, \frac{-xz}{3y}$

2. Group the like term together

i) $4x, -3y, -x, \frac{2}{3}x, \frac{4}{5}y$ and y.

ans $4x, \frac{2}{3}x, -x$ and $-3y, \frac{4}{5}y, y$.

ii) $\frac{2}{3}xy, -4yx, 2yz, \frac{-2}{3}yz, \frac{zy}{3}$ and yx.

ans $\frac{2}{3}xy, -4yx$ and $2yz, \frac{-2}{3}yz, \frac{zy}{3}$

iii) $-ab^2, b^2a^2, 7b^2a, -3a^2b^2$ and $2ab^2$

ans $-ab^2, 2ab^2$, and $b^2a^2, -3a^2b^2$ and $7b^2a$

iv) $5ax, -5by, \frac{by}{7}, 7xa$ and $\frac{2ax}{3}$

ans $5ax, 7xa, \frac{2ax}{3}$ and $-5by, \frac{by}{7}$

3. True or false

i) 16 is a constand and y is a variable, but 16y is a variable. True

ii) 5x has to term 5 and x. True

iii) The expression 5 + x has two terms 5 and x True

iv) The expression $2x^2 + x$ is a trinomial. False

v) $2x^2 + bx + c$ is a trinomial. True

vi) $8 \times ab$ is a binomial. False

vii) $8 + ab$ is a binomial. True

viii) $x^3 - 5xy + 6x + 7$ is a polynomial. True

ix) $x^3 - 5xy + 6x + 7$ is a trinomial. True

x) The coefficient of x in $-5xy$ is $-5x$. False

xi) The coefficient of ab in $-ab$ is -1. False True

xii) The coefficient of y in $-3xy$ is -3. False

4. State the no. of terms in each of the expressions.

i) $2a - b = 2$ ii) $3x \times \frac{a}{2} = 2$ iii) $3x \div \frac{x}{p} = 2$

iv) $a \div x \times b + c = 2$ v) $3x \div 2 + y + 4 = 3$

vi) $xy \div 2 = 0$ vii) $x + y \div a = 2$ viii) $2x + y + 8 \div y = 3$

ix) $2x a + 3 \div b + 4 = 3$

5. True or False

i) xy and $-yx$ are like term. True

ii) x^2y and $-y^2x$ are ~~un~~like term False

iii) a and $-a$ are like term. true

iv) -ba and 2ab are unlike terms. False.

v) 5 and 5x are like terms. False.

vi) 3xy and 4xyz are unlike term. True.

6. For each expression given below, state whether it is a monomial or a binomial or a trinomial.

i) xy = monomial
ii) xy + x = binomial
iii) 2x ÷ y = binomial
iv) -a = monomial
v) $ax^2 \cdot x + 5$ = trinomial
vi) -3bc + d = binomial
vii) 1 + x + y = trinomial
viii) 1 + x ÷ y = binomial
ix) $x + xy - y^2$ = trinomial

7. Write down the coefficient of x in the following monomials:-

i) x = x coefficient is 1
ii) -x = x coefficient is -1
iii) -3x = x coefficient is -3
iv) -5ax = x coefficient is -5a
v) $\frac{3}{2}xy$ = x coefficient is $\frac{3}{2}y$
vi) $\frac{ax}{y}$ = x coefficient is $\frac{a}{y}$

8. Write the coefficient of:

i) x in $-3xy^2$ = $3y^2$
ii) x in -ax = a
iii) y in -y = 1
iv) y in $\frac{2}{a}y$ = $\frac{2}{a}$
v) xy in -2xyz = -2z
vi) -3xy ax in $-axy^2$ = y^2
vii) x^2y in $3ax^2y$ = 3a
viii) xy^2 in $5axy^2$ = 5a

State Numerical Coefficients of the following monomials:

9\. i) $5xy = 5$

ii) $abc = 1$

iii) $5pqr = 5$

iv) $-\frac{2x}{y} = -2$

v) $\frac{2}{3}xy^2 = \frac{2}{3}$

vi) $-\frac{15xy}{2z} = \frac{-15}{2}$

vii) $-7x \div y = -7$

viii) $-3x \div (2y) = \frac{-3}{2}$

10\. Write the degree of each of the following Polynomials:-

i) $x + x^2 = 2$

ii) $5x^2 - 7x + 2 = 2$

iii) $x^3 - x^8 + x^{10} = 10$

iv) $1 - 100x^{20} = 20$

v) $4 + 4x - 4x^3 = 3$

vi) $8x^2y - 3y^2 + x^2y^5 = 7$

vii) $8z^3 - 8y^2z^3 + 7yz^5 = 6$

viii) $4y^2 - 3x^3 + y^2x^7 = 9$

(w) 21
.07

Revision for PT-1