

$$\text{Ex. } a \times a \times a \times a = a^4$$

HW 1.8 Ex - 18 (B)

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

Constants - 6, 5, 0

Variables - $4y$, $-3x$, $\frac{4}{9}xy$, az , $3p$, $\frac{2x}{y}$, $\frac{8}{4x}$, $\frac{-xz}{3y}$

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

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

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

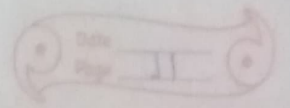
i) $1b$ is a constant and y is a variable, but $1by$ is a variable. True

ii) $5x$ has two 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



v) $8x + ab$ is a binomial. False

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

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

ix) $x^3 - 5xy + 6x + 7$ is a multinomial. 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) $3x + \frac{a}{2} = 2$ iii) $3x - \frac{x}{p} = 2$

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

vi) $xy + 2 = 0$ vii) $x + y + a = 2$ viii) $2x + y + 8 + 7 = 3$

ix) $2xa + 3 + b + 4 = 3$

5. True or False

i) xy and $-y^2$ are like term. True

ii) x^2y and $-y^2x$ are unlike 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 terms. 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) $2x \div y$ = ~~binomial~~ monomial
- iv) $-a$ = monomial
- v) $ax^2 - x + 5$ = 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) -1^3xy ax in $-axy^2$ = $-y^2$
- vii) x^2y in $3ax^2y$ = $3a$
- viii) xy^2 in $5axy^2$ = $5a$

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State Numerical coefficients of the following monomials:

i) $5xyz = 5$

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

ii) $abc = 1$

iii) $5pqr = 5$

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

iv) $-2x = -2$

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

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

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

CU
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Revision for PT-1