H.W
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Ex - 18 B

1. $4y - 3x, 5/4\,(4/5)xy, az, 7p, 0, 9x/y, 3/4x - xz/3y$

Ans → a, b, 5/4 and 0 are the constants

$4y - 3x\,(4/5)xy, az, 7p, 9z/y, 3/4x$ and $-xz/3y$ are the variables

2. Group the like terms together

(i) $4x - 3y - x\,(2/3)x\,(4/5)y$ and y

Ans → (a) $x, -x, \frac{2}{3}x$

(b) $-3y, \frac{4}{5}y, y$

(ii) $(2/3)xy - 4y - yx, 2yz, (-2/3)yz, zy/3$ and yx

Ans → (a) $\frac{2}{3}xy - 4yx, yx$

(b) $2z^2, -\frac{2}{3}y^2, \frac{2y}{3}$

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

Ans → (a) $ab^2, 2b^2a, 2ab^2$

(b) $b^2a^2 - 3a^2b^2$

3 State whether true or

2 Group the like terms together:

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

Ans: $5ax\ 7xa$, $\frac{2ax}{3}$ and $-5bY$, $\frac{bY}{7}$

3. State whether true and False:

(i) 16 is a constant and y is a variable, but 16y is variable (True)

(ii) '5x has two terms 5 and x (False)

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

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

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

(vi) $8xab$ 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 multinomial (True)

(x) The coefficient of x in 5x is 5x. (False)

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

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

4 State the number of terms in each of the following expressions:

(viii) ~~3x Three terms~~

(viii) 2x+y+8÷y

Ans: three terms

(ix) 2xa + 3÷b+4

Ans: three terms

5. State whether true or false

(i) Xy and -yx are like terms. (True)

(ii) x^2y and $-y^2x$ are like terms (False)

(iii) a and -a are like term (True)

(iv) -ba and 2a.b are unlike terms (False)

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

(vi) 2

7

(v)

6.

(i)

(ii)

(iii

(iv

(v)

(vi

(

(v

(i

(vi) $3xy$ and $4xy^2$ are unlike terms. (True)

7. ~~Write down the coefficient of x in the following~~

(v) ~~$\frac{3}{2}xy$~~

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) $2x \div y$ = Monomial

(iv) -2 = Monomial

(v) $ax^2 - x + 5$ = Trinomial

(vi) $-3bc + d$ = Binomial

(vii) $1 + x + y$ = Trinomial

(viii) $1 + x \div y$ = Binomial

(ix) $x + xy - y^2$ = Trinomial

7. coefficient of $x = 1$

coefficient of $-x = -1$

coefficient of $-3x = -3$

coefficient of $-5ax = -5a$

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

(v) $\frac{3}{2}xy$

Ans → $\frac{3}{2}y$

(vi) $\frac{ax}{y}$

Ans → $\frac{a}{y}$

8. Write the coefficients of:

(ii) x in $-ax$

Ans → coefficients of x in $-ax = -a$

(iii) y in $-y$

Ans → Coefficients of y in $-y = -1$

(iv) y in $\frac{2}{a}y$

Ans → Coefficients of y in $\frac{2}{a}y = \frac{2}{a}$

(v) xy in $-2xyz$

Ans → Cofficients of xy in $2xyz = -2z$

(vi) ax in $-axy^2$

Ans → coefficients of ax in $-axy^2 = -ay^2$

(vii) $x2y$ in $-3ax^2y$

Ans → coefficients of $x2y$ in $-3ax^2y = -3a$

(viii) xy^2 in $.5axy^2$

Ans → coefficients of xy^2 in $5axy^2 = 5a$

9 State numerical coefficients of the following monomial.

(i) $5xy$

Ans 5

(ii) abc

Ans 1

(iii) $5pqr$

Ans 5

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

Ans → -2

(v) $\frac{2}{3} \times y^2$

Ans → $\frac{2}{3}$

(vi) $\frac{-15}{2} \times \frac{y}{z}$

Ans → $-\frac{15y}{2z}$

(vii) $-7x \div y$

Ans → -7

(viii) $-3x \div (2y)$

Ans → $-3 \div 2$

10 Write the degree of each of the following polynomials:

(i) $x + x^2$

Ans → 2

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

Ans → 2

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

Ans → 10

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

Ans → 20

(v) $4 + 4x - 4x^{3}$

Ans → 3

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

Ans → 7

(vii) $8z^3 - 8y^2z^3 + 7y^5$

Ans → 6

(viii) $4y^3 - 3x^3 + y^2x^2$

Ans → 4