Ex. 18 (B)

1) Separate the constants and variables from each of the following:

$6, 4y, -3x, \frac{5}{4}, \frac{4}{5}xy, az, 7p, 0, \frac{9x}{y}, \frac{3}{4x}, \frac{xz}{3y}$

Ans → Constants are $6, \frac{5}{4}$ and 0.

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

2) Group the like terms together:

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

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

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

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

Tuesday

Date 20.7.21
Page 40

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

Ans → $-ab^2$, $7b^2a$, $2ab^2$ and b^2a^2, $3a^2b^2$.

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

Ans → $5ax$, $7xa$, $\frac{2ax}{3}$ and $-5by$, $\frac{bx}{7}$.

3) State whether True or False.

i) 16 is a constant any x is a variable, but 16y is a variable. True

ii) 5x has two terms 5 and x. False

iii) The expressions 5+x has two terms 5 and x. True

iv) The expressions $2x^2+x$ 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

Tue
Tuesday

Date 26.5.21
Page 41

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 ~~follow~~ following expressions:

i) $2a-b$

Ans→ There are two terms.

ii) $3x + \frac{a}{2}$

Ans→ There are two terms.

iii) $3x - \frac{x}{p}$

Ans→ There are 2 terms.

iv) $a \div x \times b + c$

Ans→ There are 2 terms.

v) $3x \div 2 + y + 4$

Ans→ There 3 terms.

vi) $xy \div 2$

Ans→ There is ~~no~~ 1 term.

Tuesday

Date 20.7.21
Page 42

iii) $x + y \div a$

Ans→ There are 2 terms.

iv) $2x + y + 8 \div y$

Ans→ There are 3 terms.

ix) $2 \times a + 3 \div b + 4$.

Ans→ There are 4 terms.

5) State wheather 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 terms. 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 wheather it is a monomial, binomial and trinomial.

i) xy

Ans→ It is a Monomial.

Tuesday

Date 20.7.21
Page 43

ii) $xy + x$

Ans→ It is a binomial.

iii) $2x \div y$

Ans→ It is a ~~binomial~~ monomial.

iv) $-a -$

Ans→ It is a Monomial.

v) $ax^2 - x + 5$

Ans→ It is a trinomial.

vi) $-3bc + d$

Ans→ It is a binomial.

vii) $1 + x + y$

Ans→ It is a Trinomial.

viii) $1 + x \div y$

Ans→ It is a Binomial.

ix) $x + xy - y^2$

Ans→ It is a Trinomial.

Assignment

Date 20.7.21
Page 44

7) Write down the coefficients of x.

i) x

Ans→ The coefficient of x is 1.

ii) -x

Ans→ The coefficent of -x is 1.

iii) -3x

Ans→ The ~~coefficient~~ coefficient of x is -3.

iv) -5ax

Ans→ The coefficient of x is -5a.

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

Ans→ The coefficient of x is $\frac{3}{2}y$.

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

Ans→ The coefficent of x is $\frac{a}{y}$.

8) Write the coefficients of:

i) x in $-3xy^2$

Ans→ The coefficient of x is $-3y^2$.

CW
Tuesday

ii) x in $-ax$

Ans→ The coefficient of x is $-a$.

iii) y in $-y$.

Ans→ The coefficient of y is -1.

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

Ans→ The coefficient of y is $\frac{2}{a}$.

v) xy in $-2xyz$.

Ans→ The coefficient of xy is $-2z$.

vi) ax in $-axy^2$.

Ans→ The coefficient of ax is $-axy^2$.

vii) x^2y in $-3ax^2y$.

Ans→ The coefficient of x^2y is $-3a$.

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

Ans→ The coefficient of xy^2 is $5a$.

9) State the numeral coefficients of the following Monomials.

Tuesday

i) $5xy$

Ans→ The numeral coefficient is 5.

ii) abc

Ans→ The numeral coefficient is 1.

iii) $5pq, 12$

Ans→ The numeral coefficient is 5.

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

Ans→ The numeral coefficient is -2.

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

Ans→ The numeral coefficient is $\frac{2}{3}$.

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

Ans→ The numeral coefficient is $\frac{-15}{2}$.

vii) $-7x \div y$

Ans→ The numeral coefficient is -7.

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

Ans→ The numeral coefficient is $\frac{-3}{2}$.

CW
Tuesday

Date 20.7.21
Page 47

10) Write the degree of the following polynomials.

i) $x + x^2$

Ans→ The degree of the polynomial is 2.

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

Ans→ The degree of the polynomial is 2.

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

Ans→ The degree of the polynomial is 10.

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

Ans→ The degree of the polynomial is 20.

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

Ans→ The degree of the polynomial is 3.

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

Ans→ The degree of the polynomial is $2+5 = 7$.

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

Ans→ The degree of the polynomial is $y + z^5 = 1 + 5 = 6$.

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

Ans→ The degree of the polynomial is $y^2 + x^7 = 2 + 7 = 9$.