31/Oct/21

Maths (H.W.)

CH - 18 → Fundamental Concepts [Theme 3 - ALGEBRA]

[Topic] → {Ex} → 18 (A) Q2, 18(B) Q3, Q5 & Q7

Ex 18 (A)

Q2. For each of the following algebraic expressions, write a suitable statement in words:

(i) $3x + 8 = 15$

Ans Three 3x plus 8 is equal to 15

(ii) ~~$7 - 7y > x$~~

(ii) $7 - y > x$

Ans 7 minus y is ~~less than x~~ greater than x.

(iii) $2y - x < 12$

Ans 2y minus, x is less than 12.

(iv) $5 \div z = 5$

Ans ~~$a + 2b > 18$~~ 5 divided by z is equal to 5.

(v) $a + 2b > 13$

a plus 2b is greater than 13

(vi) $2x - 3y = 16$

2x minus 3y is equal to 16.

(vii) $3a - 4b > 14$

3a minus 4b is greater than 14.

(viii) $b + 7a < 21$

b plus 7a is less than 21

(ix) $(16 + 2a) - x > 15$

The sum of 16 and 2a ~~decreased~~ decreased by x is ~~6~~ greater than 15.

(x) $(3x + 12) - y < 3a$

Ans The sum of $3x$ and 12 decreased by y is less than $3a$

Ex 18 (B)

Q3. State whether true or false

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

(ii) The expression $5 + x$ has two terms 5 and x. 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) $8 \times ab$ is a is a binomial: False.

(vii) $x^3 - 8 + ab$ is a binomial: True

(viii) $x^3 - 5xy + 6x + 7$ is a multinomial 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

Q5. 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 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

Q7. Write down the coefficient of x in the following ~~monim~~ ~~to~~ monomials :

(i) $x = 1$

(ii) $-x = -1$

(iii) $-3x = -3$

(iv) $-5ax = -5a$

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

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