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CLASS - VI, SECTION - 'D'
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Date
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ex) $(16+2a)-x>25$ The sum of 16 and 2a decreased by x is greater than 25.

x) $(3x+12)-y<3a$ - The sum of 3x and 12 decreased by y is less than 3a

## Exercise - 18 (B)

1) Separate the constants and the 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) 6, $\frac{5}{4}$ and 0 are constants.

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

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

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

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

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

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

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

3. i) 16 is a constant and y is a variable but 16y is variable. (T)

ii) 5x has two terms 5 and x. (F)

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

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

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

vi) 8xab is a binomial. (F)

vii) 8+ ab is a binomial (T)

viii) $x^3 - 5xy + 6x + 7$ is a polynomial (T),

(ix) $x^3 - 5xy + 6x + 7$ is a multinomial. (T).

(x) The coefficient of y in $-3xy$ is $-3$ (F).

xi) The coefficient of ab in $-ab$ is $-1$ (T)

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

4) i) $2a - b$ - 2 terms

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

iii) $3x - \frac{x}{p}$ - 2 terms

iv) $a \div x \times b + c$ - 2 terms

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

vi) $xy \div 2$ - 1 terms

vii) $x + y \div a$ - 2 terms

viii) $2x + y + 8 \div y$ - 3 terms

ix) $2 \times a + 3 \div 6 + 4$ - 3 terms

5) i) $xy$ and $-yx$ are like terms. (T)

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

iii) $a$ and $-a$ are like terms. (T)

iv) $-ba$ and $2ab$ are unlike terms. (T)

v) 5 and $5x$ are like terms. (F)

vi) $3xy$ and $4xyz$ are unlike terms (T).

6) i) $xy$ - Monomial.

ii) $xy+x$ - Binomial

iii) $2x \div y$ - Monomial

iv) $-a$ - Monomial

v) $ax^2 - x + 5$ - trinomial

vi) $-3bc + d$ - Binomial

vii) $1 + x + y$ ~~Binomial~~ trinomial

viii) $1 + x \div y$ - Binomial

ix) $x + xy^2$ trinomial

7) ~~i) $x = 1$~~ Coefficient of $x$

i) $x = 1$

~~ii) $-x = -1$~~ ii $-x = \div 1$

iii) $-3x = -3$

iv) $-5ax = -5a$

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

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

8) Coefficients 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) $ax$ in $-axy^2 = -y^2$

vii) $x^2y$ in $-3ax^2y = -3a$

viii) $xy^2$ in $5axy^2 = 5a$

## Numerical coefficients of

9) i) $5xy = 5$

ii) $abc = 1$

iii) $5pqx = 5$

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

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

vi) $\frac{-15xy}{22} = \frac{-15}{2}$

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

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

(0)

i) $x + x^2 = 1 + 2 = 2$

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

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

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

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

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

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

viii) $4y^2 - 3x^3 + y^8x^7 = 2 + 7 = 9$

— x —