

## Ex-19(A)

1) Fill in the blanks:

i)  $5+4 = \underline{9}$  and  $5x+4x = \underline{9x}$

ii)  $12+18 = \underline{30}$  and  $12x^2y+18x^2y = \underline{30x^2y}$

iii)  $7+16 = \underline{23}$  and  $7a+16b = \underline{7a+16b}$

iv)  $1+3 = \underline{4}$  and  $x^2y+3xy^2 = \underline{x^2y+3xy^2}$

~~v)  $2$  and  $2ab$~~

v)  $7-4 = \underline{3}$  and  $7ab-4ab = \underline{3ab}$

vi)  $12-5 = \underline{7}$  and  $12x-5y = \underline{12x-5y}$

vii)  $35-16 = \underline{19}$  and  $35ab-16ba = \underline{19ab}$

viii)  $28-13 = \underline{15}$  and  $28ax^2-13a^2x = \underline{28ax^2-13a^2x}$

2) Fill in the blanks:

i) The sum of  $-2$  and  $-5 = \underline{-7}$  and the sum of  $-2x$  and  $-5x = \underline{-7x}$

ii) The sum of 8 and -3 = 5 and the sum of 8ab and -3ab = 5ab

iii) The sum of +5 and -4 = -1 and the sum of -15x and -4y = -15x-4y

iv)  $15+8+3 = \underline{26}$  and  $15x+8y+3x = \underline{18x+8y}$

v)  $12-9+15 = \underline{18}$  and  $12ab-9ab+15ba = \underline{18ab}$

vi)  $25-7-9 = \underline{9}$  and  $25xy-7xy-9yx = \underline{9xy}$

vii)  $4-6-5 = \underline{-15}$  and  $4ax-6ax-5ax = \underline{-10ax-5ax}$

(3) Add:

i)  $8xy$  and  $3xy = \underline{11xy}$

~~ii)  $2xyz$ ,  $xyz$  and  $6xyz =$~~

ii)  $2xyz$ ,  $xyz$  and  $6xyz = \underline{9xyz}$

iii)  $2a, 3a, 4b = \underline{5a+4b}$

iv)  $3x$  and  $2y = \underline{3x+2y}$

v)  $5m, 3n, 4p = \underline{5m+3n+4p}$

~~vi)  $6a, 3a, 9a =$~~

vi)  $6a, 3a, 9ab = \underline{9a+9ab}$

vii)  $3p, 4q, 9q = \underline{3p+13q}$

viii)  $5ab, 4ba, 6b = \underline{9ab+6b}$

ix)  $50pq, 30pq$  and  $10pr = \underline{80pq+10pr}$

$$x) -2y, -y, -3y = -6y$$

$$xi) 3b, -b = -4b$$

$$xii) 5b, -4b, -10b = -9b$$

$$xiii) -2c, -c, -5c = -8c$$

4) Evaluate  $\Rightarrow$

$$i) 6a - a - 5a - 2a$$

$$A) -2a$$

$$ii) 2b - 3b - b + 4b = 2b + 4b - (3+1)b = 6b - 4b = 2b$$

$$iii) 3x - 2x - 4x + 7x = 3x + 7x - 2x - 4x \\ = (3+7)x - (2+4)x \\ = 10x - 6x = 4x$$

$$iv) 5ab + 2ab - 6ab - 6ab + ab \\ = 5ab + 2ab + ab - 6ab - 6ab = 2ab$$

$$v) 8x - 5y - 3x + 10y \\ = 8x - 3x + 10y - 5y \\ = 5x + 5y$$

5) Evaluate  $\Rightarrow$

$$i) -7x + 9x + 2x - 2x \\ A) = 9x + 2x - 7x - 2x \\ = 11x - 9x = 2x$$

$$ii) 5ab - 2ab - 8ab + 6ab$$

$$Ans = 5ab + 6ab - 2ab - 8ab$$

$$= 11ab - 10ab = ab$$

$$iii) -8a - 3a + 12a + 13a + 13a - 6a$$

$$Ans = 12a + 13a - (8a + 3a + 6a)$$

$$= 25a - 17a = 8a$$

$$iv) 19abc - 11abc - 12abc + 14abc$$

$$Ans = abc(19 - 11 + 14 - 12)$$

$$= abc(33 - 23) = 10abc$$

⑥ Subtract the first term from the second:

$$i) 6ba - 4ab = 2ab$$

$$ii) 6 \cdot 8b - 4 \cdot 8b = 2b$$

$$iii) 10 \cdot 5abc - 3 \cdot 5abc = 7abc$$

$$iv) 8 \frac{1}{2} \frac{m}{n} - 3 \frac{1}{2} \frac{m}{n}$$

$$= 1 \frac{7}{2} \frac{m}{n} - 1 \frac{1}{2} \frac{m}{n}$$

$$= 1 \frac{7mn}{2} - 1 \frac{1mn}{2}$$

$$= 1 \frac{6mn}{2} = 3mn$$

⑦ Simplify

⑧ Simplify

$$i) Ans = 2a^2b^2 + 8a^2b^2 + 5ab^2 - 3ab^2$$

$$= 10a^2b^2 + 2ab^2$$

$$\begin{aligned} \text{ii) (A)} & \quad \cancel{4a} + 3b - 2a - b \\ & = 4a - 2a + 3b - b \\ & = 2a + 2b \end{aligned}$$

$$\begin{aligned} \text{iii) (A)} & = 2xy + 5xy - 6xy + 4yz + 3yz \\ & = 7xy - 6xy + 7yz \\ & = x + 7yz \end{aligned}$$

$$\begin{aligned} \text{iv) (A)} & \quad ab + 15ab - 11ab - 2ab \\ & = 16ab - 13ab = 3ab \end{aligned}$$

$$\begin{aligned} \text{v) (A)} & \quad 6a^2 - 3b^2 + 2a^2 + 5b^2 - 4a^2 \\ & = 6a^2 + 2a^2 - 4a^2 + 5b^2 - 3b^2 \\ & = 4a^2 + 2b^2 \end{aligned}$$

$$\begin{aligned} \text{vi) (A)} & = 8abc - 4abc + 2ab + ab \\ & = 4abc + 3ab \end{aligned}$$

$$\begin{aligned} \text{vii) (A)} & \quad 9xyz + 15yxz - 10zyx - 2zxy \\ & = 9xyz + 15xyz - 10xyz - 2xyz \\ & = 24xyz - 12xyz = \boxed{12xyz} \end{aligned}$$