Exercise 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) $7 - 4 = \underline{3}$ 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 $-3 = \underline{5}$ and the sum of $8ab$ and $-3ab = \underline{5ab}$

iii) The sum of -15 and $-4 = \underline{-19}$ and the sum of $-15x$ and $-4y = \underline{-15x - 4y}$

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

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

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

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

3. Add:

i) $8xy$ and $3xy$

Ans- $8xy + 3xy$
$= 11xy$

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

Ans- $2xyz + 1xyz + 6xyz$
$= (2xyz + 1xyz) + 6xyz$
$= 3xyz + 6xyz$
$= 9xyz$

iii) $2a, 3a$ and $4b$

Ans- $2a + 3a + 4b$
$= (2a + 3a) + 4b$
$= 5a + 4b$

iv) $3x$ and $2y$

Ans- $3x + 2y$

v) 5m, 3n and 4p

Ans - 5m + 3n + 4p

vi) 6a, 3a and 9ab

Ans - 6a + 3a + 9ab
= (6a + 3a) + 9ab
= 9a + 9ab

vii) 3p, 4q and 9q

Ans - 3p + 4q + 9q
= 3p + (4q + 9q)
= 3p + 13q

viii) 5ab, 4ba and 6b

Ans - 5ab + 4ba + 6b
= (5ab + 4ba) + 6b
= 9ab + 6b

ix) 50pq, 30pq and 10pr

Ans - 50pq + 30pq + 10pr
= (50pq + 30pq) + 10pr
= 80pq + 10pr

x) -2y, -y and -3y

Ans = -2y + (-y) + (-3y)
=

xi) -3b and -b

Ans - -3b + (-1b)
= -3b - 1b
= -4b

xii) 5b, -4b and -10b

Ans = 5b + (-4b) + (-10b)
= (5b - 4b) - 10b
= 1b - 10b
= -9b

xiii) -2c, -c and -5c

Ans - -2c + (-1c) + (-5c)
= (-2c - 1c) - 5c
= -3c - 5c
= -8c

4. Evaluate:

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

Ans- $6a - 8a$

$= -2a$

ii) $2b - 3b - b + 4b$

Ans $= 2b + 4b - 3b - 1b$

$= 6b - 4b$

$= 2b$

iii) $3x - 2x - 4x + 7x$

Ans- $3x + 7x - 2x - 4x$

$= 10x - 6x$

$= 4x$

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

Ans $= 5ab + 2ab + 1ab - 6ab$

$= 8ab - 6ab$

$= 2ab$

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

Ans- $8x - 3x - 5y + 10y$

$= 5x + 5y$

5. Evaluate:

i) $-7x + 9x + 2x - 2x$

Ans $= 9x + 2x - 7x - 2x$

$= 11x - 9x$

$= 2x$

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

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

$= 11ab - 10ab$

$= 1ab = ab$

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

Ans- $12a + 13a - 8a - 3a - 6a$

$= 25a - 17a$

$= 8a$

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

Ans- $19abc + 14abc - 11abc - 12abc$

$= 33abc - 23abc$

$= 10abc$