NAME - SUBHASHREE PANIGRAHI
CLASS - VI, SECTION - 'D' SCHOOL NO - 4658

Date
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Exercise - 19(A)

1. i) $5+4=9$ and $5x+4x=9x$

ii) $12+18=30$ and $12x^2y+18x^2y=30x^2y$

iii) $7+16=23$ and $7a+16b=7a+16b$

iv) $1+3=4$ and $x^2y+3xy^2=x^2y+3xy^2$

v) $7-4=3$ and $7ab-4ab=3ab$

vi) $12-5=7$ and $12x-5y=12x-5y$

vii) $35-16=19$ and $35ab-16a=19ab$

viii) $28-13=15$ and $28ax^2-13a^2x=28ax^2-13a^2x$

2. i) The sum of -2 and $-5=-7$ and the sum of $-2x$ and $-5x=-7x$.

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

iii) The sum of -15 and $-4=-19$ and the sum of $-15x$ and $-4y=-15x-4y$.

iv) $15+8+3=26$ and $15x+8y+3x=18x+8y$

v) $12-9+15=18$ and $12ab-9ab+15ba=18ab$

vi) $25-7-9=9$ and $25xy-7xy-9yx=9xy$

vii) $-9-6-5=-15$ and $-4ax-6ax-5ay=-10ax-5ay$

3) i) $8xy$ and $3xy$

$= 8xy + 3xy = (8+3)xy = 11xy$.

ii) $2xyz + xyz + 6xyz$

$= (2+1+6)xyz = 9xyz$

iii) $2a + 3a + 4b$

$= (2+3)a + 4b$

$= 5a + 4b$

iv) $3x + 2y$

$= 3x + 2y$

v) $5m + 3n + 4p$

$= 5m + n + 4p$

vi) $6a + 3a + 9ab$

$= (6+3)a + 9ab$

$= 9a + 9ab$

vii) $3p + 4q + 9q$

$= 3p + (4+9)q$

$= 3p + 13q$

viii) $5ab + 4ba + 6b$

$= (5+4)ab + 6b$

$= 9ab + 6b$

ix) $50pq + 30pq + 10pr$

$= (50+30)pq + 10pr$

$= 80pq + 10pr$

x) $(-2y) + (-y) + (-3y)$
$= (-2-1-3)y$
$= -6y$

xi) $(-3b) + (-b)$
$= (-3-1)b$
$= -4b$

xii) $5b + (-4b) + (-10b)$
$= (5-4-10)b$
$= (5-14)b$
$= -9b$

xiii) $(-2c) + (-c) + (-5c)$
$= (-2-1-5)c$
$= -8c$.

4) i) $6a - a - 5a - 2a$
$= (6-1-5-2)a$
$= (6-8)a$
$= -2a$

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

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

iv) $5ab + 2ab - 6ab + ab$
$= (5+2-6+1)ab$
$= (5+2+1-6)ab$
$= (8-6)ab$
$= 2ab$

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

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

$= (-7 + 9 + 2 - 2)x$

$= (9 + 2 - 7 - 2)x$

$= (11 - 9)x$

$= 2x$

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

$= (5 - 2 - 8 + 6)ab$

$= (5 + 6 - 2 - 8)ab$

$= (11 - 10) \cdot ab$

$= 1 \times ab = ab.$

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

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

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

$= (25 - 17)a$

$= 8a$

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

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

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

$= (33 - 23)abc$

$= 10abc$

6) i) $6ba - 4ab$

$= (6 - 4)ab$

$= 2ab$

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

$= (6 \cdot 8 - 4 \cdot 8)b$

$= 2b$

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

$= (10 \cdot 5 - 3 \cdot 5)abc$

$= 7abc.$

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

$= (8\frac{1}{2} - 3\frac{1}{2})mn$

$= (\frac{17}{2} - \frac{7}{2})mn$

$= (\frac{17 - 7}{2})mn$

$= \frac{(10)}{2} mn$

$= 5mn$

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

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

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

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

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

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

$= 2a + 2b$

iii) $2xy + 4yz + 5xy + 3yz - 6xy$

$= (2xy + 5xy - 6xy) + (4yz + 3yz)$

$= 1xy + 7yz$

iv) $ab + 15ab - 11ab - 2ab$

$= (ab + 15ab) - (11ab + 2ab)$

$= 16ab - 13ab$

$= 3ab$

v) $6a^2 - 3b^2 + 2a^2 + 5b^2 - 4a^2$

$= (6a^2 + 2a^2 - 4a^2) - (3b^2 + 5b^2)$

$= 4a^2 + 2b^2$

vi) $8abc + 2ab - 4abc + ab$

$= (8-4)abc + (2+1)ab$

$= 4abc + 3ab.$

vii) $9xyz + 15yxz - 10zyx - 2zxy$

$= (9+15-10-2)xyz$

$= 12xyz$

viii) $13pqr + 2p + 4q - 6pqr + 5pqr$

$= (13-6+5)pqr + 2p + 4q$

$= 12pqr + 2p + 4q$

ix) $4ab + 0 - 2ba$

$= (4-2)ab$

$= 2ab$

x) $6x^2y - 2xy^2 + 5x^2y - xy^2$

$= (6+5)x^2y - (2+1)xy^2$

$= 11x^2y + 3xy^2.$