Algebraic Expressions Ex 7.3 Q1

Answer :

We have

(i) $x + y - 3z + y = x + y - (3z - y)$

(ii) $3x - 2y - 5z - 4 = 3x - 2y - (5z + 4)$

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

(iv) $7a + 3b + 2c + 4 = 7a + 3b - (-2c - 4)$

(v) $2a^2 - b^2 - 3ab + 6 = 2a^2 - b^2 - (3ab - 6)$

(vi) $a^2 + b^2 - c^2 + ab - 3ac = a^2 + b^2 - c^2 - (-ab + 3ac)$

Algebraic Expressions Ex 7.3 Q2

Answer :

(i) The sum of $a - b$ and $3a - 2b + 5 = \{(a - b) + (3a - 2b + 5)\}$.

This is subtracted from $4a + 2b - 7$.

Thus, the required expression is $\{4a + 2b - 7\} - \{(a - b) + (3a - 2b + 5)\}$.

(ii) Three times the sum of $2x + y - \{5 - (x - 3y)\}$ and $7x - 4y + 3 = 3[(2x + y) - \{5 - (x - 3y)\} + (7x - 4y + 3)]$.

This is subtracted from $3x - 4y + 7$.

Thus, the required expression is $(3x - 4y + 7) - 3[(2x + y) - \{5 - (x - 3y)\} + (7x - 4y + 3)]$.

(iii) The product of subtraction of $x^2 - y^2 + 4xy$ from $2x^2 + y^2 - 3xy$ is given by $\{(2x^2 + y^2 - 3xy) - (x^2 - y^2 + 4xy)\}$.

When the above equation is added to $9x^2 - 3y^2 - xy$, we get

$\{(2x^2 + y^2 - 3xy) - (x^2 - y^2 + 4xy)\} + (9x^2 - 3y^2 - xy)$

*********** END **********