MATHEMATICS

Class-7th

Chapter-12

Algebraic expressions

Exercise-12.2

Part-2

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Q. 3. Sol. "Subtract:"

(i) $y^2 - (-5y^2)$

$= y^2 + 5y^2 = 6y^2$ ✗

(ii) $-12xy - 6xy$

$= -18xy$ ✗

(iii) $(a+b) - (a-b)$

$= a + b - a + b$

$= 2b$ ✗

(iv) $b(5-a) - a(b-5)$

$= 5b - ab - ab + 5a$

$= 5b - 2ab + 5a$

$= 5a + 5b - 2ab$ ✗

(v) $(4m^2 - 3mn + 8) - (-m^2 + 5mn)$

$= 4m^2 - 3mn + 8 + m^2 - 5mn$

$= 4m^2 + m^2 - 3mn - 5mn + 8$

$= 5m^2 - 8mn + 8$ ✗

(vi) $(5x - 10) - (-x^2 + 10x - 5)$

$= 5x - 10 + x^2 - 10x + 5$

$= x^2 + 5x - 10x - 10 + 5 = x^2 - 5x - 5$ ✗

(vii) $(3ab - 2a^2 - 2b^2) - (5a^2 - 7ab + 5b^2)$

$= 3ab - 2a^2 - 2b^2 - 5a^2 + 7ab - 5b^2$

$= -2a^2 - 5a^2 - 2b^2 - 5b^2 + 3ab + 7ab$

$= -7a^2 - 7b^2 + 10ab.$ ✔

(viii) $(5p^2 + 3q^2 - pq) - (4pq - 5q^2 - 3p^2)$

$= 5p^2 + 3q^2 - pq - 4pq + 5q^2 + 3p^2$

$= 5p^2 + 3p^2 + 3q^2 + 5q^2 - pq - 4pq$

$= 8p^2 + 8q^2 - 5pq.$ ✔

Q.4. (a) **Sol:.**

We must subtract $x^2 + xy + y^2$ from
$2x^2 + 3xy$

Therefore.
$$2x^2 + 3xy$$
$$x^2 + xy + y^2$$
$$- \quad - \quad -$$
$$\overline{x^2 + 2xy - y^2}.$$ Ans.

(b) **Sol:** We must subtract $-3a + 7b + 16$
from $2a + 8b + 10$.

$\therefore$
$$2a + 8b + 10$$
$$-3a + 7b + 16$$
$$+ \quad + \quad +$$ ✔
$$\overline{5a + b - 6}$$ Ans.

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