

St. Andrews Scots Sr. Sec. School

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Session:2024-25

Worksheet

Class: VII	Subject: Mathematics	Topic: Algebraic expression	Worksheet 7
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Q1. Write an algebraic expression:

- (i) Product of numbers $2a$ and b subtracted from 100 .
- (ii) Subtracting 7 from the product of 5 and x

Q2. Write the coefficient of

- (i) x in the term $2xyz$
- (ii) y^2 in the term $-3xy^2$

Q3. Show terms and factors of $2x - 3x^3$ by tree diagram.

Q4. Subtract

- (i) $x^2 - 2xy + 3y^2$ from $4xy - 7x^2 + 5y^2$.
- (ii) $8y - x^2 - 4$ from $3x^2 + 5x + 4$

Q5. Add

- (i) $4 + 3x$, $5 - 4x + 2x^2$ and $-x^2 + 2x + 5$.
- (ii) $2x^2 + 3y^2 + 1$, $2y^2 - 1 - 4x^2$ and $1 + 3x^2 + 3y^2$

Q6. What should be added to $2x^2 + 3y^2 + 5xy$ to get $7x^2 - 3y^2 - 3xy$?

Q7. What should be subtracted from $5xy - 7x^2 + 3y^2$ to get $x^2 + y^2 + z^2$?

Q8. If $x = 2$ find the value of $3x^2 - 2x + 3$.

Q9. What is the value of m if $3x^2 + 4x - m$ is equal to 7, when $x = -1$.

Q10. Simplify the expression: $3(-x^2 + 2xy) - 5(xy - x^2)$ and find the value for $x = 1$ and $y = -1$.