QUIZEN – Polynomial(9M02)

Learning Level 1	Learning Level 2	Learning Level 3
Q - Remembering (knowledge-based questions) U - Understanding (comprehension-based questions)	I - Applying (application-based questions) Z - Analyzing (analysis-based questions)	E - Evaluating (evaluation-based questions) N - Creating (creation-based questions)

Learning Level 1

1. State the algebraic identity for $(a + b)^2$.

2. Write the algebraic identity for $(a - b)^2$.

3. State the algebraic identity for $(a + b)(a - b)$.

4. Write the algebraic identity for $(a + b + c)^2$.

5. Identify the algebraic identity for $(a - b)^3$.

Learning Level 2

6. Expand $(2x + 3y)^2$ using the algebraic identity.

7. Simplify $(5x - 2y)^2$ using the algebraic identity.

8. If $(a + b) = 5$ and $(a - b) = 3$, find the value of $(a^2 - b^2)$.

9. If $(a + b) = 7$ and $(a - b) = 1$, find the value of $(a^2 + b^2)$.

10. Simplify the expression $(2x + 3y)(2x - 3y)$ using the algebraic identity.

11. Prove the algebraic identity $(a + b)^2 = a^2 + 2ab + b^2$.

12. Derive the algebraic identity for $(a + b + c)^3$.

13. If $(x + y + z) = 6$ and $(x^2 + y^2 + z^2) = 18$, find the value of $(xy + yz + zx)$.

14. Simplify the expression $(a^3 + b^3 + c^3 - 3abc)$ using the algebraic identity.

15. Use the algebraic identity to expand $(a + b + c)^4$ and simplify the resulting expression.