

Class – 9th

Chapter-3

Subject Maths

Worksheet-07

Algebraic Identities

Evaluate the following using suitable identities:

1. $(99)^3$ 2. $(102)^3$ 3. $(998)^3$

Verify :

4. $x^3 + y^3 = (x + y) (x^2 - xy + y^2)$

5. $x^3 - y^3 = (x - y) (x^2 + xy + y^2)$

Factorise each of the following:

6. $27y^3 + 125z^3$ 7. $64m^3 - 343n^3$

8. Verify that $x^3 + y^3 + z^3 - 3xyz = \frac{1}{2} (x + y + z) [(x - y)^2 + (y - z)^2 + (z - x)^2]$