

LESSON PLAN CLASS 9



Class	Subject	Time Slot	Lesson	Topic P9/P10
IX	MATHS	35 Mins+ 35 Mins 2 Pds	Polynomials	Algebraic Identities Ex 2.5
Expected Learning Outcome: The learners will be able to : 1. Write and memorise different algebraic identities. 2. Apply algebraic identities in factorization of polynomials.				
Expected skill development: • Strategic thinking while doing factorization. • Developing connection skills while applying identities. • Apply algebraic identities in computation. • Computational skills.				

FLOW OF LESSON WITH RESPECT TO TIME (Introduction/Warm up, Content, thinkline, closure)

Pedagogy	Content
<u>(15 Mins) Warm Up</u> Demonstration by facilitator: The facilitator ask the learners to recall the algebraic identities and write on black board.	$(x + y + z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2xz$ $(x + y)^3 = x^3 + y^3 + 3xy(x + y)$ $(x - y)^3 = x^3 - y^3 - 3xy(x - y)$ $x^3 + y^3 + z^3 - 3xyz = (x + y + z) (x^2 + y^2 + z^2 - xy - yz - zx)$

<u>(50 mins) Demonstration by facilitator on Board</u> Now the facilitator will take up few more identities and will ask learners to write in their notebook. Facilitator will revise all the identities done in class.	Solve in copy: 1. $(99)^3$ 2. $(102)^3$
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5 mins(Closure): Facilitator will ask learners to revise all algebraic identities.	1.Factorise $8a^3 - b^3 - 12a^2b + 6ab^2$ 2.Verify $x^3 + y^3 = (x + y)(x^2 - xy + y^2)$
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Proposed Questions (must include the questions asked in the classroom <u>and</u> the ones given as class-work in the notebook) 1.Factorise $64m^3 - 343n^3$ 2.Factorise : $27x^3 + y^3 + z^3 - 9xyz$ 3.If $x + y + z = 0$, show that $x^3 + y^3 + z^3 = 3xyz$. 4.Without actually calculating the cubes, find the value of each of the following: (i) $(-12)^3 + (7)^3 + (5)^3$	
Evaluation/Assessment: Teacher will assess the children randomly and also through student teacher interaction.	
Learners on the way Evaluate $(998)^3$	Advanced Learners Prove that $(a+b+c)^3 - a^3 - b^3 - c^3 = 3(a+b)(b+c)(c+a)$
Materials needed/Resources: Chalk, blackboard, duster, NCERT Text book.	
Common Misconceptions: In application of different identities like $(x + y+z)^2 = x^2+ y^2+ z^2+2xy+2yz+2xz$ $x^3 + y^3 + z^3 - 3xyz = (x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx)$ and their use in factorization or finding the product of polynomials.	Addressing the Misconceptions: By explanation and more practice examples.

HOME ASSIGNMENTS: Complete remaining parts of Q7, 8, 10, 14 and 15 of Ex – 2.5 of NCERT Text Class 9.