

SUVA SANGAM COLLEGE

YEAR 12

MATHEMATICS

WORKSHEET 5

Strand 1	Social Mathematics
Sub-Strand	1.3 indices and logarithms
Content Learning Outcome	• Solve equations involving indices
Reference from Text	Pg. 30 to 33

Questions

No.	CONCEPT IN BRIEF: To solve the equation involving the different bases, first rewrite the bases as powers of a common base then equate the powers Identify the common base (5). Write the other element as base 5 Equate the power and solve by using opposite operations.
1.	Solve for x in $5^{3x} = 125^{3x+1}$
	CONCEPT IN BRIEF: Remove the constant 2. Take the opposite of square both sides Solve by using opposite operations
2.	Solve for x $(x + 1)^2 + 2 = 27$
	CONCEPT IN BRIEF: Identify the common base Write the other element as base Equate the power and solve by using opposite operations
3.	Solve for x in a) $7^{2x+1} = 343$ b) $4^{2x-1} = 64$