## Logs

Argument loga c = b 1 a = c V Index form

Examples Tridexform logiform  $2^3 - 8 \rightarrow \log_2 8 - 3$ 

3 = 27 log\_ 27= 3 52 25 log 25 = 2

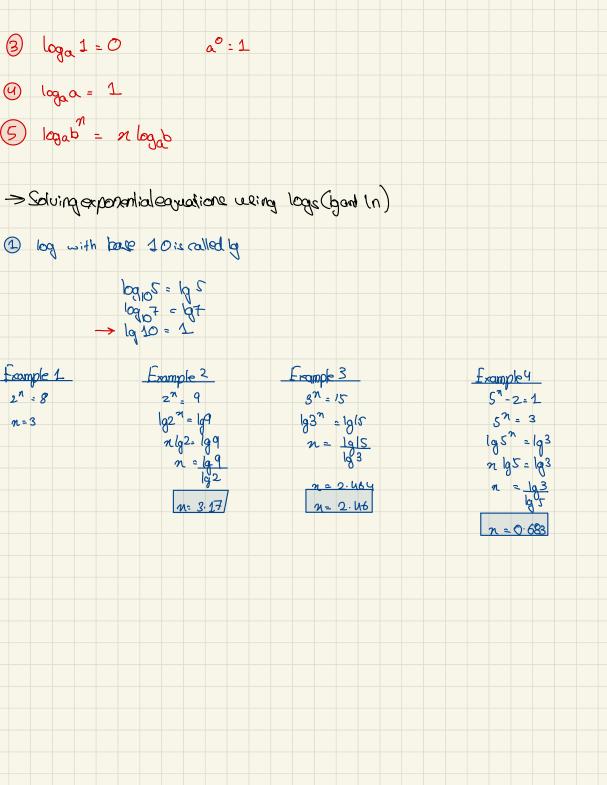
12 = 7 not possible log17 = Not possible

70 = 1 10971= 0 S1 \_ S

log5 5 = 1

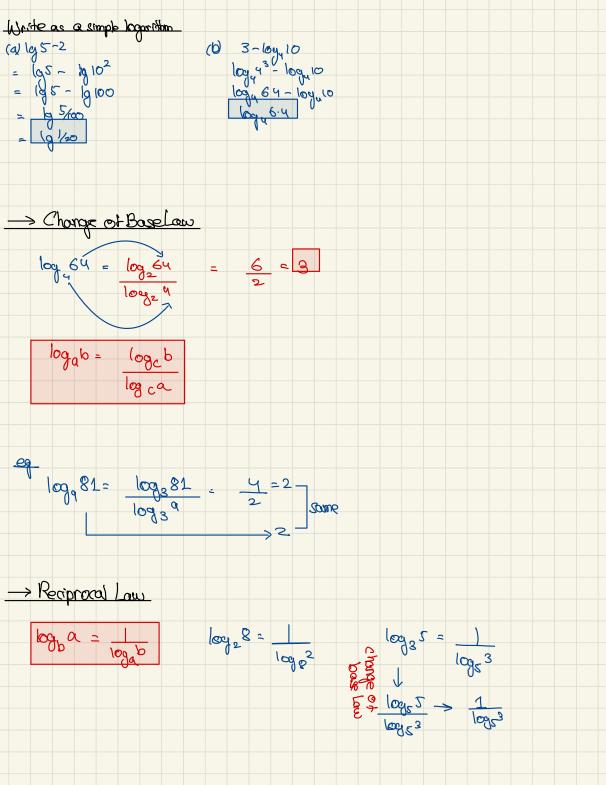
2 log to be defined  $\sqrt{-9} \rightarrow not$  possible

1 a>0 2 b>0 & b × 1



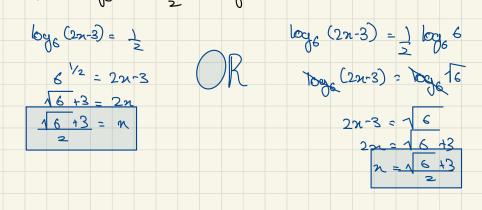
Example 6

$$g^{m+1} = 11$$
 $g^{m+2} = 11$ 
 $g^{m+1} = 11$ 
 $g$ 



## Past Papers

53 a) Solve the equation logs (2x-3) = 1 Give your answer in exact form



(b) Solvette equation In 24 - In (4-4)=1 Grive your answer in exact form.

Write 3+2/ga-lgb as a logarithm to base 10 3+2 | ga- | gb 3 | g 10+ | ga2- | gb 1g 2000 + 1ga2 - 1gb 19 (100002) b) Solve the equation 3 lagar + 2 logue = 7 Substituition logya=y 3 loga 4 +210gya= 7 log 4 α = 3 logy a=1  $\frac{3}{\log a} + 2y = 7$   $\frac{3}{3} + 2y = 7$ 3+242 = 7y 242 - 7413 242 - 64 - 413 24(4-3) - (4-3) (4-3) 224-1)

a pad 5 + 13 d 5 A = a Solve the equation logzy= n 10g2 4 x 2 4 reciprocal 4 + n = 4 4+22 = 4x 2-47+4=0 n2-2n-2n+4-0 n (n-2) -2(2-2) Given that logal + logat - loga 4 = loga 20 find the value of p Toga 50 = 100 20 5p = 20 5p = 80 No Calc log2 (x+2) = 3-2 log2 x (a) Show that n3+6n2-32=0  $\log_2(y+1) = 3\log_2 2 - \log_2 x^2$   $\log_2(y+1) = \log_2 8 - \log_2 x^2$   $\log_2(y+1) = \log_2 \frac{8}{\lambda^2}$   $y+1 = \frac{8}{\lambda^2}$ log 2 (202) = log 4 + log 2 y 2 -> 2 - 4y-2

