

Ex 1  $2^x = 5$

$\log_2 2^x = \log_2 5$  LL#3

$x \frac{\log_2 2}{\log_2 2} = \frac{\log_2 5}{\log_2 2}$

$x = \frac{\log_2 5}{\log_2 2}$  calculator ready  
 $x = 2.322$

- ① can't get "like" bases.
- ② Not help from log
- ③ LL#3 bring variable down.

You try ...

$$3^x = 7$$

$$\log 3^x = \log 7$$

$$(x) \frac{\log 3}{\log 3} = \frac{\log 7}{\log 3}$$

$$x = \frac{\log 7}{\log 3}$$

$$x = 1.771$$

$$9^{n+10} + 3 = 81$$

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$$\frac{-3}{-3} = \frac{-3}{-3}$$

$$9^{n+10} = 78$$

$$\log_9 9^{(n+10)} = \log_9 78$$

$$(n+10) \frac{\log_9 9}{\log_9 9} = \frac{\log_9 78}{\log_9 9}$$

$$n+10 = \frac{\log_9 78}{\log_9 9}$$

$$n = \frac{\log_9 78}{\log_9 9} - 10$$

$$= -8.017$$

$$1) 6^n = 99$$

$$5) 5^{3-2x} = \frac{1}{625}$$

$$2) 4^{n-2} = 256$$

$$3) 2^{x-1} = 35$$

$$4) 11^{n-8} - 5 = 54$$