

1.logarithm

(1)solve following equations.

$$\log_{10} 10(x-1) = \log_{10} (x^2 - 5x + 4)$$

(2)compare  $\log_2 3$  with  $\log_9 16$

$$\log_9 16 = \frac{\log_2 16}{\log_2 9} = \frac{\log_2 2 \log_2 2}{2 \log_2 3}$$

$$\log_2 3 = \frac{\log_2 3 \log_2 3}{\log_2 3}$$