

$$V_{P15} = V_{dd} e^{-\frac{t}{RC}} \quad (1)$$

$$\ln(V_{P15}) = \ln(V_{dd} e^{-\frac{t}{RC}}) \quad (2)$$

$$\ln(V_{P15}) = \ln(V_{dd}) + \ln(e^{-\frac{t}{RC}}) \quad (3)$$

$$\ln(V_{P15}) = \ln(V_{dd}) + \frac{-t}{RC} \quad (4)$$

$$\ln(V_{P15}) = \ln(V_{dd}) - \frac{t}{RC} \quad (5)$$

$$+\frac{t}{RC} - \ln(V_{P15}) = +\frac{t}{RC} - \ln(V_{P15}) \quad \text{Add}$$

$$\frac{t}{RC} = \ln(V_{dd}) - \ln(V_{P15}) \quad (6)$$

$$\frac{t}{RC} = \ln\left(\frac{V_{dd}}{V_{P15}}\right) \quad (7)$$