

Original expression:

$$\frac{\mu F \cdot \Omega \cdot \Omega \cdot \ln \left( \frac{\mu F \cdot \Omega \cdot (\Omega + \Omega) \cdot \left( V - \frac{(\Omega \cdot V)}{(\Omega + \Omega)} \right)}{((- \mu F) \cdot V \cdot \Omega^2) + (V \cdot \Omega) + (\Omega \cdot V)} \right)}{(\Omega + \Omega)} = ?$$

Ignoring assumed "scale factor"  $\mu$ , the argument for  $\ln()$  becomes :

$$\frac{F \cdot \Omega \cdot (\Omega + \Omega) \cdot \left( V - \frac{(\Omega \cdot V)}{(\Omega + \Omega)} \right)}{((-F) \cdot V \cdot \Omega^2) + (V \cdot \Omega) + (\Omega \cdot V)} \rightarrow \frac{-(\Omega \cdot F)}{\Omega \cdot F - 2}$$

and since  $\Omega \cdot F$  is an R\*C time constant, the argument for  $\ln()$  is NOT unitless and  $\ln()$  correctly fails.

So I would guess the original expression however obtained is not correct.