In Lecture 3.9, we argued that:

$$\log_{10} I_{OFF} = c_1 + c_2 I_{ON}$$  \hspace{1cm} (1)$$

Use the empirical expression valid for $V_{GS} > 0$

$$Q_n(V_{GS}) = -C_{inv} m (k_BT/q) \ln \left(1 + e^{q(V_{GS}-V_T)/m_kT}\right)$$  \hspace{1cm} (2)$$

and answer the following question.

1) Show that eqn. (1) is true and evaluate the constants, $c_1$ and $c_2$. 