$$\mu(t) = e^{at}$$

$$\Rightarrow$$

$$e^{at}y' - ae^{at}y = b$$

$$\equiv$$

$$[e^{at}y]' = b$$

$$\equiv$$

$$\int_{t_0}^{t} [e^{as}y]'ds = \int_{t_0}^{t} bds$$

$$\equiv$$

$$e^{at}y - e^{at_0}y_0 = bt - bt_0$$

$$\equiv$$

$$y = e^{-at}(bt - bt_0 + e^{at_0}y_0)$$