Resolver el problema de valor inicial para:

$$2y' + ty = 2 \wedge y(0) = 1$$

Solución:

$$\begin{aligned}
& 2y' + ty = 2 \wedge y(0) = 1 \\
\equiv & \\
& y' + \frac{t}{2}y = 1 \wedge y(0) = 1 \\
\equiv & \quad \left\langle \ \mu(t) = e^{\frac{t^2}{4}} \ \right\rangle \\
& [e^{\frac{t^2}{4}} y]' = e^{\frac{t^2}{4}} \\
\equiv & \\
& y = e^{-\frac{t^2}{4}} \int_0^t e^{\frac{s^2}{4}} ds + e^{-\frac{t^2}{4}}
\end{aligned}$$