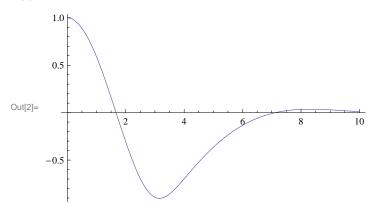
$\ln[1] = b = NDSolve[\{y''[t] + (y'[t] + 1)^2 * y'[t] + y[t] == 0, y[0] == 1, y'[0] == 0\}, y[t], \{t, 0, 10\}]$ $\text{Out[1]} = \{\{y[t] \rightarrow \text{InterpolatingFunction}[\{\{0., 10.\}\}, <>][t]\}\}$

ln[2]:= Plot[Evaluate[y[t] /.b], {t, 0, 10}]



$$\label{eq:loss_loss} \begin{split} & \ln[3] := \ D \\ \text{Solve} \\ \left[\left\{ \text{L} \star \text{Q''}[\text{t}] + \text{R} \star \text{Q'}[\text{t}] + \frac{1}{\text{C}} \star \text{Q[t]} \right. \\ & = V_0 \star \text{e}^{\text{j} \star \omega \star \text{t}} \right\}, \, \text{Q[t], t} \right] \end{split}$$

$$\text{Out} \text{[3]= } \left\{ \left\{ \text{Q[t]} \to e^{\frac{\left(-\text{cR} - \sqrt{\text{c}} \ \sqrt{-4\,\text{L+cR}^2} \ \right) \, \text{t}}{2\,\text{CL}}} \ \text{C[1]} + e^{\frac{\left(-\text{cR} + \sqrt{\text{c}} \ \sqrt{-4\,\text{L+cR}^2} \ \right) \, \text{t}}{2\,\text{CL}}} \ \text{C[2]} \ - \right\} \right\} = \left\{ \left\{ \text{C[2]} \to e^{\frac{\left(-\text{cR} + \sqrt{\text{c}} \ \sqrt{-4\,\text{L+cR}^2} \ \right) \, \text{t}}{2\,\text{CL}}} \right\} \right\} = \left\{ \left\{ \text{C[2]} \to e^{\frac{\left(-\text{cR} + \sqrt{\text{c}} \ \sqrt{-4\,\text{L+cR}^2} \ \right) \, \text{t}}{2\,\text{CL}}} \right\} \right\} \right\} = \left\{ \left\{ \text{C[2]} \to e^{\frac{\left(-\text{cR} + \sqrt{\text{c}} \ \sqrt{-4\,\text{L+cR}^2} \ \right) \, \text{t}}{2\,\text{CL}}} \right\} \right\} \right\} = \left\{ \left\{ \text{C[2]} \to e^{\frac{\left(-\text{cR} + \sqrt{\text{c}} \ \sqrt{-4\,\text{L+cR}^2} \ \right) \, \text{t}}{2\,\text{CL}}} \right\} \right\} \right\} = \left\{ \left\{ \text{C[2]} \to e^{\frac{\left(-\text{cR} + \sqrt{\text{c}} \ \sqrt{-4\,\text{L+cR}^2} \ \right) \, \text{t}}{2\,\text{CL}}} \right\} \right\} \right\} = \left\{ \left\{ \text{C[2]} \to e^{\frac{\left(-\text{cR} + \sqrt{\text{c}} \ \sqrt{-4\,\text{L+cR}^2} \ \right) \, \text{t}}{2\,\text{CL}}} \right\} \right\} \right\}$$

$$2 \text{ C L } \left(\sqrt{C} \text{ e}^{\frac{\left(-\text{CR} + \sqrt{C} \sqrt{-4 \text{ L+CR}^2}\right) \text{ t}}{2 \text{ CL}} + \frac{\text{t}}{\left(R - \frac{\sqrt{-4 \text{ L+CR}^2}}{\sqrt{C}} + 2 \text{ j L } \omega\right)}} \text{ R } - \sqrt{C} \text{ e}^{\frac{\left(-\text{CR} + \sqrt{C} \sqrt{-4 \text{ L+CR}^2}\right) \text{ t}}{2 \text{ CL}} + \frac{\text{t}}{\left(R + \frac{\sqrt{-4 \text{ L+CR}^2}}{\sqrt{C}} + 2 \text{ j L } \omega\right)}} \text{ R } + \right)$$

$$e^{\frac{\left[-c_{R}+\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}\right]t}{2c_{L}}+\frac{t}{\sqrt{-4_{L+C_{R}^{2}}}}+2j_{L}\omega}} + e^{\frac{\left[-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}\right]t}{\sqrt{-4_{L}+C_{R}^{2}}} + e^{\frac{\left[-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}\right]t}{2c_{L}}+\frac{t}{\sqrt{-4_{L+C_{R}^{2}}}}} + 2j_{L}\omega}} \sqrt{-4_{L}+C_{R}^{2}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}t}{2c_{L}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}t}{2c_{L}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}t}{2c_{L}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}t}{2c_{L}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}t} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}t}{2c_{L}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}t}{\sqrt{c}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}t}{\sqrt{c}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{c}\sqrt{c}\sqrt{-4_{L+C_{R}^{2}}}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{c}\sqrt{c}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{c}}}{\sqrt{c}}} + e^{\frac{-c_{R}-\sqrt{c}\sqrt{c}$$

$$2\,\sqrt{C}\,\,\,e^{\frac{\left(-c\,R+\sqrt{c}\,\,\sqrt{-4\,L+c\,R^2}\,\right)\,t}{2\,c\,L}\,+\,\frac{t}{c}\,\frac{\left(R-\frac{\sqrt{-4\,L+c\,R^2}}{\sqrt{c}}\,+\,2\,j\,L\,\omega\right)}{2\,L}}\,\,j\,L\,\omega\,-\,2\,\sqrt{C}\,\,\,e^{\frac{\left(-c\,R-\sqrt{c}\,\,\sqrt{-4\,L+c\,R^2}\,\right)\,t}{2\,c\,L}\,+\,\frac{t}{c}\,\frac{\left(R+\frac{\sqrt{-4\,L+c\,R^2}}{\sqrt{c}}\,+\,2\,j\,L\,\omega\right)}{\sqrt{c}}\,\,j\,L\,\omega}\,\,j\,L\,\omega\,\,\,V_0\,\,\Big|}\,\,/\,\,$$

$$\left(\sqrt{-4\; L + C\; R^2} \; \left(-\sqrt{C}\; \; R + \sqrt{-4\; L + C\; R^2} \; - 2\; \sqrt{C}\; \; \text{j}\; L\; \omega \right) \; \left(\sqrt{C}\; \; R + \sqrt{-4\; L + C\; R^2} \; + 2\; \sqrt{C}\; \; \text{j}\; L\; \omega \right) \right) \right\} \right\}$$