$solution = DSolve[y'[t] == t(y[t])^3, y[t], t]$

$$\left\{\left\{y[t] \rightarrow -\frac{1}{\sqrt{-t^2-2\,\varepsilon_1}}\right\},\, \left\{y[t] \rightarrow \frac{1}{\sqrt{-t^2-2\,\varepsilon_1}}\right\}\right\}$$

f[t_] = y[t] /. solution[1]

g[t_] = y[t] /. solution[2]

 $F[t_] = Table \Big[f[t] \, /. \, c_1 \rightarrow j \, , \, \Big\{ j \, , \, \, -10 \, , \, \, 10 \Big\} \Big]$

 $\label{eq:Gt_signal} \begin{aligned} \mathsf{G[t_]} &= \mathsf{Table} \Big[\mathsf{g[t]} \, /. \, \, \mathbf{c_1} \rightarrow \mathsf{j} \, , \, \, \left\{ \mathsf{j} \, , \, \, -10 \, , \, \, \, 10 \right\} \Big] \end{aligned}$

 $Plot[{F[t], G[t]}, {t, -5, 5}]$

