Problem 9.12 of text

\[ H(s) = \frac{15}{2s+1} \]

\[ y(t) = K(1 - e^{-\frac{t}{2}})u(t) \]

From the plot, \( K = 0.5 \)

For \( t = 2 \),

\[ y(2) = 0.5(1 - 0.368) = 0.632 \times 0.5 = 0.316 \]

From the plot, \( y = 0.316 \) at \( t = 0.04 \)

\[ H(s) = \frac{0.5}{0.04s + 1} = \frac{12.5}{s + 25} \]