Problem: Need 50 Ohm inductor for 150 MHz
Evaluate both ac and dc solutions

\[ L = 2 \pi f L \]

\[ L = 2 \pi (150 \times 10^6)(50 \times 10^{-9}) \]

\[ Z_L = \frac{L}{2} + j \frac{Q}{L} \]

\[ Z_L = 0.12 \lambda \]

\[ \lambda_{sc} = 0.12 \lambda = 0.158 \lambda \]

\[ \lambda = \frac{V_p}{f} = \frac{2 \times 10^8 \times 150}{66} = 2.32 \lambda \]

*Short circuit stub = 0.12 \lambda = 0.158 \lambda

*Open circuit stub = 0.37 \lambda = 0.49 \lambda