Problem: Need small inductor for 150 MHz.
Evaluate both oc and sc. solutions.

\[ X_L = 2\pi f L \]
\[ X_L = 2\pi (150 \times 10^9) (50 \times 10^{-9}) \]
\[ = 47.12 \Omega \]

\[ Z_L = 0 + j 47.1 \Omega \]
\[ Z_0 = 0.10942 \text{ (approximated)} \]
\[ \lambda_{sc} = 0.12 \lambda = 0.158 \]

\[ \lambda = \frac{\nu_0}{f} \cdot \frac{3 \times 10^8}{150 \times 10^9} = 1.32 m \]

- Short circuit stub = 0.12 \lambda or 0.158 m.
- Open circuit stub = 0.37 \lambda or 0.49 m.