



$$\begin{aligned}
 Z_{TH} &= (2-j) \parallel (1+2j) = \frac{1}{\frac{1}{2-j} + \frac{1}{1+2j}} \\
 &= \frac{(2-j)(1+2j)}{2-j+1+2j} = \frac{2-j+4j+2}{3+j} \cdot \frac{3-j}{3-j} \\
 &= \frac{1}{10} \cdot (4+3j)(3-j) \\
 &= \frac{1}{10} (12+9j-4j+3) \\
 &= 1.5 + 0.5j
 \end{aligned}$$

$$Z_L^* = Z_{TH} \quad \text{FOR MAX POWER}$$

$$Z_L = 1.5 - 0.5j$$