

② a) iii)

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Page 6 of 12

$$\frac{Z_1}{Z_2} = \frac{1+7j}{2-5j} \times \frac{2+5j}{2+5j}$$

$$\begin{array}{r|rr} & 1 & 7j \\ \hline 2 & 2 & 14j \\ \hline -5j & -5j & -35j^2 \end{array}$$

$$\begin{array}{r|rr} & 2 & -5j \\ \hline 2 & 4 & -10j \\ \hline 5j & 10j & -25j^2 \end{array}$$

$$\frac{-35j^2 + 9j + 2}{-25j^2 + 4}$$

$$\textcircled{j^2 = -1}$$

$$\frac{9j + 2 + 35}{25 + 4}$$

$$\frac{9j + 37}{29}$$

$$= \frac{37}{29} + \frac{9j}{29}$$