$$= \frac{1}{\left(\frac{1}{\sqrt{2}} - \frac{\sqrt{5}}{\sqrt{2}} z^{-1} + j\frac{1}{\sqrt{2}}\right)\left(\frac{1}{\sqrt{2}} - \frac{\sqrt{5}}{\sqrt{2}} z^{-1} - j\frac{1}{\sqrt{2}}\right)}$$

$$= \frac{\sqrt{2}}{(1 - \sqrt{5} z^{-1} + j)(1 - \sqrt{5} z^{-1} - j)}$$

POLES AT $1 - \sqrt{5} z^{-1} + j = 0$ $\quad 1 - \sqrt{5} z^{-1} - j = 0$

OR $z = \frac{\sqrt{5}}{1+j}$ $\quad z = \frac{\sqrt{5}}{1-j}$