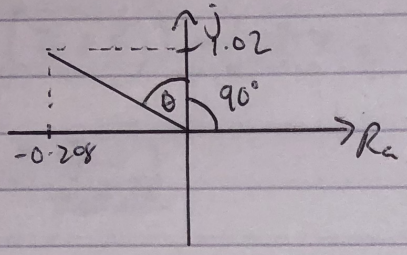
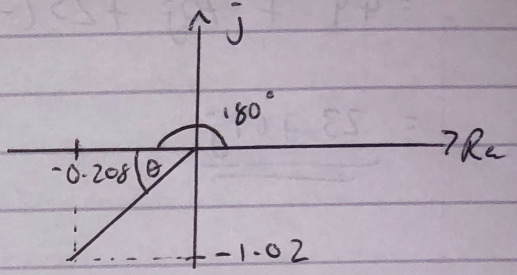
1b cont. $\therefore x = \frac{-5}{24} + \frac{24.47j}{24}$ or $\frac{-5}{24} - \frac{24.47j}{24}$

$x = -0.208 + 1.02j$ or $x = -0.208 - 1.02j$





$r = \sqrt{0.208^2 + 1.02^2}$

$r = 1.041$

$\theta = \tan^{-1}\left(\frac{0.208}{1.02}\right) + 90$

$\theta = 11.53 + 90$

$\theta = 101.53$

$r = 1.041$

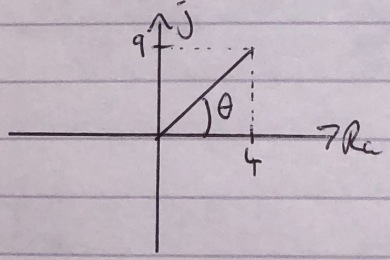
$\theta = \tan^{-1}\left(\frac{1.02}{0.208}\right) + 180$

$\theta = 78.47 + 180$

$\theta = 258.47$

$\therefore 1.041(\cos 101.53 + j\sin 101.53)$ and $1.041(\cos 258.47 + j\sin 258.57)$

(1c)(i) $(4+9j)^4$



$r = \sqrt{9^2 + 4^2}$

$r = \sqrt{97} = 9.849$

$\theta = \tan^{-1}\left(\frac{9}{4}\right)$

$\theta = 66.04$