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06/01/2021

ACHA4000

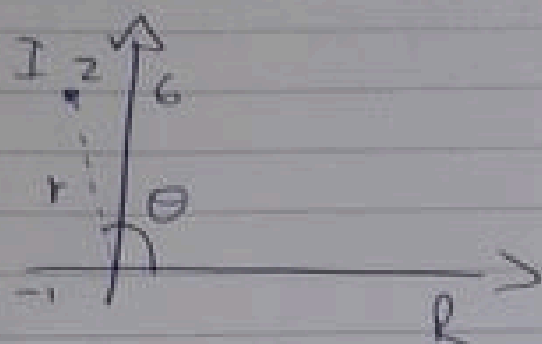
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$$2) \quad z_1 = 3 + 7j \quad z_2 = 2 - 10j \quad z_3 = -4 - j$$

$$(i) \quad 3 + 7j - 4 - j = -1 + 6j$$



$$\tan \theta = \frac{6}{-1}$$

$$\begin{cases} 6 = r \sin \theta \\ -1 = r \cos \theta \end{cases}$$

$$\theta = -1.405$$

$$\Rightarrow \theta = -1.405 + \pi = 1.736$$

$$r^2 = 6^2 + 1^2$$
$$r^2 = 37$$
$$r = \sqrt{37}$$
$$r^h (\cos \theta + j \sin \theta)$$

~~1.736~~

$$z = \sqrt{37} (\cos(1.736) + j \sin(1.736))$$