

② C) i)

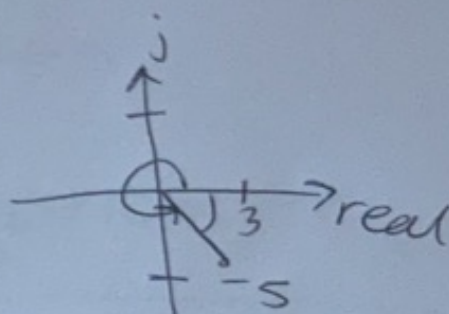
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$$(3 - 5j)^5$$

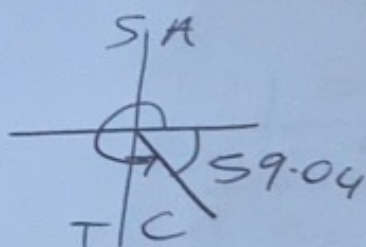
$$r = \sqrt{3^2 + 5^2}$$

$$r = 5.83$$



$$\theta = \tan^{-1}\left(\frac{-5}{3}\right)$$

$$\theta = -59.04^\circ$$



$$\theta = 300.96^\circ$$

$$(5.83)^5$$

$$5.83(\cos 300.96^\circ + j \sin 300.96^\circ)$$

$$(5.83)^5 (\cos 5 \times 300.96^\circ + j \sin 5 \times 300.96^\circ)$$

$$6735.08 (0.42578 + j 0.9048)$$

$$2867.66 + 6093.9j$$