

Pg 4

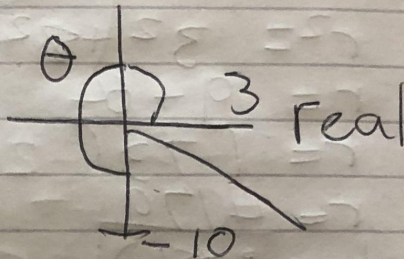
$$c) (3 - 10j)^6 \quad r^n (\cos n\theta + j \sin n\theta)$$

$$r^2 = 3^2 + 10^2$$

$$r = 9 + 100$$

$$r = \sqrt{109}$$

$$r = \underline{10.44}$$



$$\tan \theta = \frac{10}{3}$$

$$\theta = \tan^{-1}\left(\frac{10}{3}\right)$$

$$\theta = 73.3^\circ$$

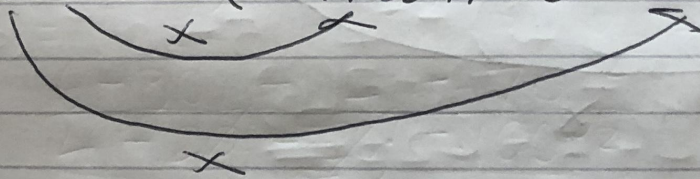
$$\theta = 360 - 73.3$$

$$\theta = \underline{286.7^\circ}$$

$$10.44^6 (\cos 6 \times 286.7 + j \sin 6 \times 286.7)$$

$$P.F. 1294800.898 (\cos 1720.2 + j \sin 1720.2)$$

$$1294800.898 (0.1770847403 + -0.984195608j)$$



$$= 229289.4808 - 1274337.357j \text{ Cartesian}$$