

Practice Exercise For Lecture 11

Q. Find $\text{Log } z$ if

(i) $z = 2i$ (Ans. $\ln 2 + \frac{\pi}{2}i$)

(ii) $z = -i$ (Ans. $-\frac{\pi}{2}i$)

(iii) $z = x, x > 0$ (Ans. $\ln x$)

(iv) $z = 1 + \sqrt{3}i$ (Ans. $\ln 2 + \frac{\pi}{3}i$)