

Chapter **5****COMPLEX NUMBERS****Eulerian form:**

Let $z = x + iy$

$$|z| = r = \sqrt{x^2 + y^2}$$

$$\theta = \tan^{-1}\left(\frac{y}{x}\right) \Rightarrow \arg z = \theta$$

$$z = re^{i\theta}, \text{ where } e^{i\theta} = \cos\theta + i\sin\theta$$

$$= e^{-i\theta} = \cos\theta - i\sin\theta$$

