



$$z = 1 + \sqrt{3}i$$

$$|z| = \sqrt{1+3} = \sqrt{4} = 2$$

$$\alpha = \arctan \frac{\sqrt{3}}{1} = \frac{\pi}{3} (60^\circ)$$

$$2 e^{i \frac{\pi}{3}}$$
$$2 \left(\cos \frac{\pi}{3} + i \sin \frac{\pi}{3} \right)$$
$$2 \left(\frac{1}{2} + i \frac{\sqrt{3}}{2} \right)$$