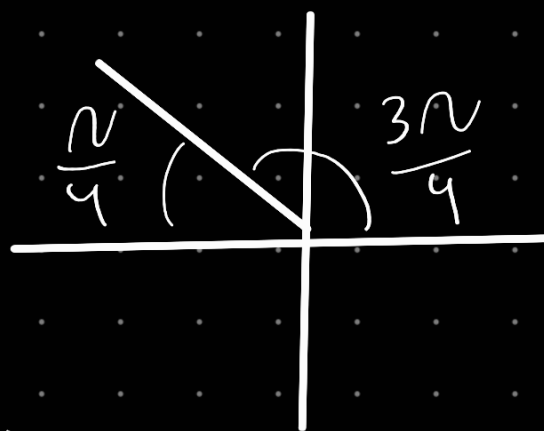29)

a) $(-1 + i)^{1/3}$

$$\left[\sqrt{2} \angle \frac{3\pi}{4}\right]^{1/3}$$

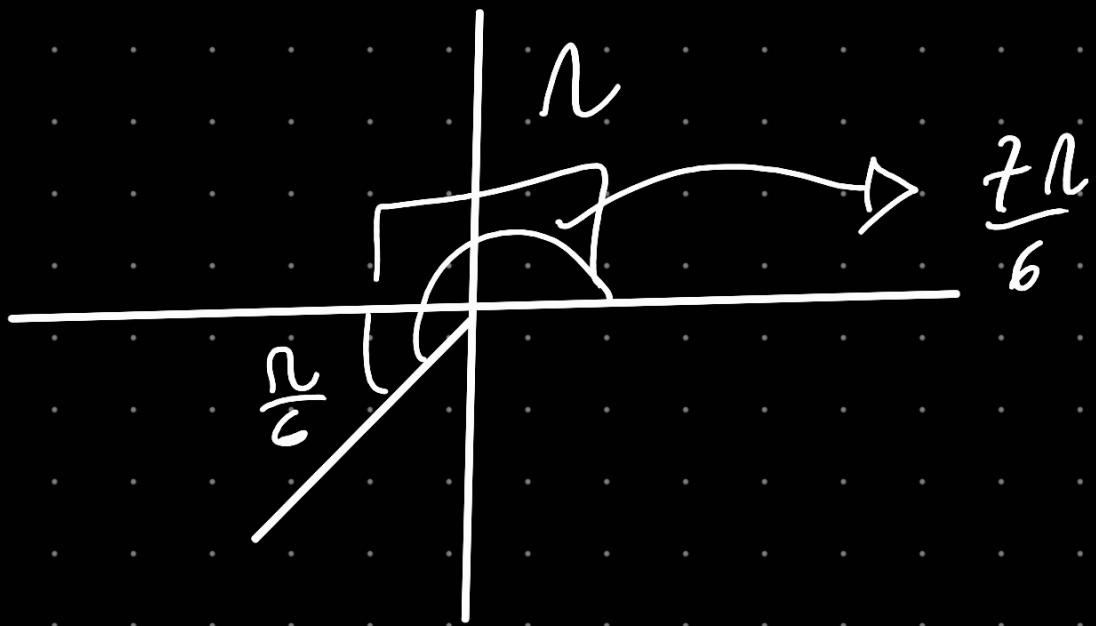$$2^{1/6} \angle \frac{\frac{3}{4} + 2K}{3} \pi$$

$$2^{1/6} \angle \frac{3 + 8K}{12} \pi$$

$$K = \{0, 1, 2\}$$

b) $(-2\sqrt{3} - 2i)^{1/4}$

$$\left(4\ \angle \tfrac{7}{6}\pi\right)^{1/4}$$

$$4^{1/4} \ \angle \left(\frac{\tfrac{7}{6}+2k}{4}\pi\right)$$

$$4^{1/4} \ \angle \left(\frac{7+12k}{24}\right)$$

$$k = \{0,1,2,3\}$$

31)

$$a z^2 + b z + c = 0 \quad \cdots \cdot 4a$$

$$(2az)^2 + 2(2az)b = -4ac \cdots +b^2$$

$$(2az + b)^2 = b^2 - 4ac \cdots \sqrt{}$$

$$z = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

50) $z^4 - z^2 + 16 = 0$

$$z^2 = \frac{1}{2} \pm \frac{\sqrt{1 - 4 \cdot 1 \cdot 16}}{2}$$

$$z^2 = \frac{1}{2} \pm \frac{3}{2} i \sqrt{7}$$

$$z^2 = 4 \angle \pm 1,445$$

$$z = \begin{cases} 2 \angle 0,7225 \\ \end{cases}$$

2,3864

$$2 \angle 3,504$$

$$2 \angle -0,7225$$

$$2 \angle 2,429$$