

$$\text{Ex. } f(x) = x^2 - 3x + 1$$

$$f(3) = 3^2 - 3(3) + 1 =$$

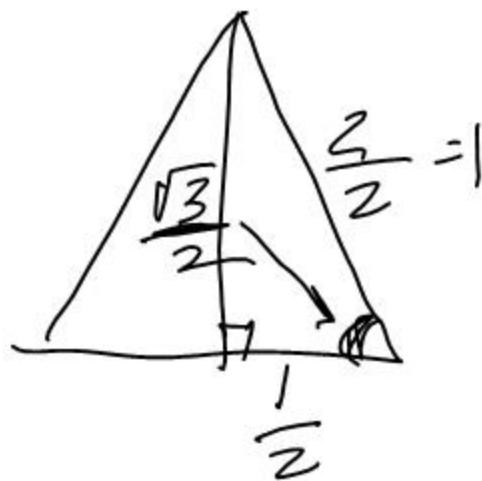
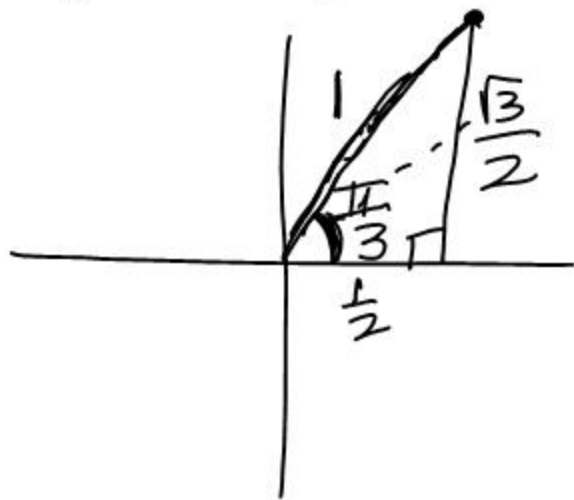
$$f(1+i) = (1+i)^2 - 3(1+i) + 1$$

$$= (1+i)(1+i) - 3 - 3i + 1$$

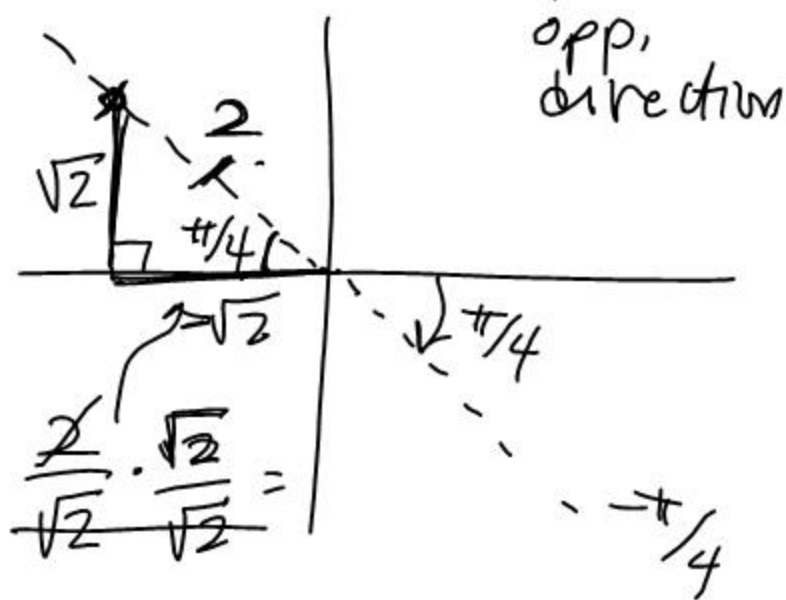
$$= \cancel{x} + \underline{\underline{2i}} - \cancel{x} - \underline{\underline{3}} - \underline{\underline{3i}} + \underline{\underline{1}}$$

$$f(1+i) = -2 - i$$

*1 rectangular: $\left(\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$ polar: $\left(1, \frac{\pi}{3}\right)$



#3. rect. $(-\sqrt{2}, \sqrt{2})$ polar $(-2, \frac{-\pi}{4})$



#66

Cart

Cart Coord

Polar Coord

M-A form

$$-\frac{\sqrt{3}}{2} - \frac{3}{2}i$$

$$\left(-\frac{\sqrt{3}}{2}, -\frac{3}{2}\right)$$

$$\left(\sqrt{3}, \frac{4\pi}{3}\right)$$

$$\sqrt{3} \left(\cos \frac{4\pi}{3}\right)$$

$$\sqrt{3} \cdot \frac{\sqrt{3}}{2} = \frac{3}{2}$$

