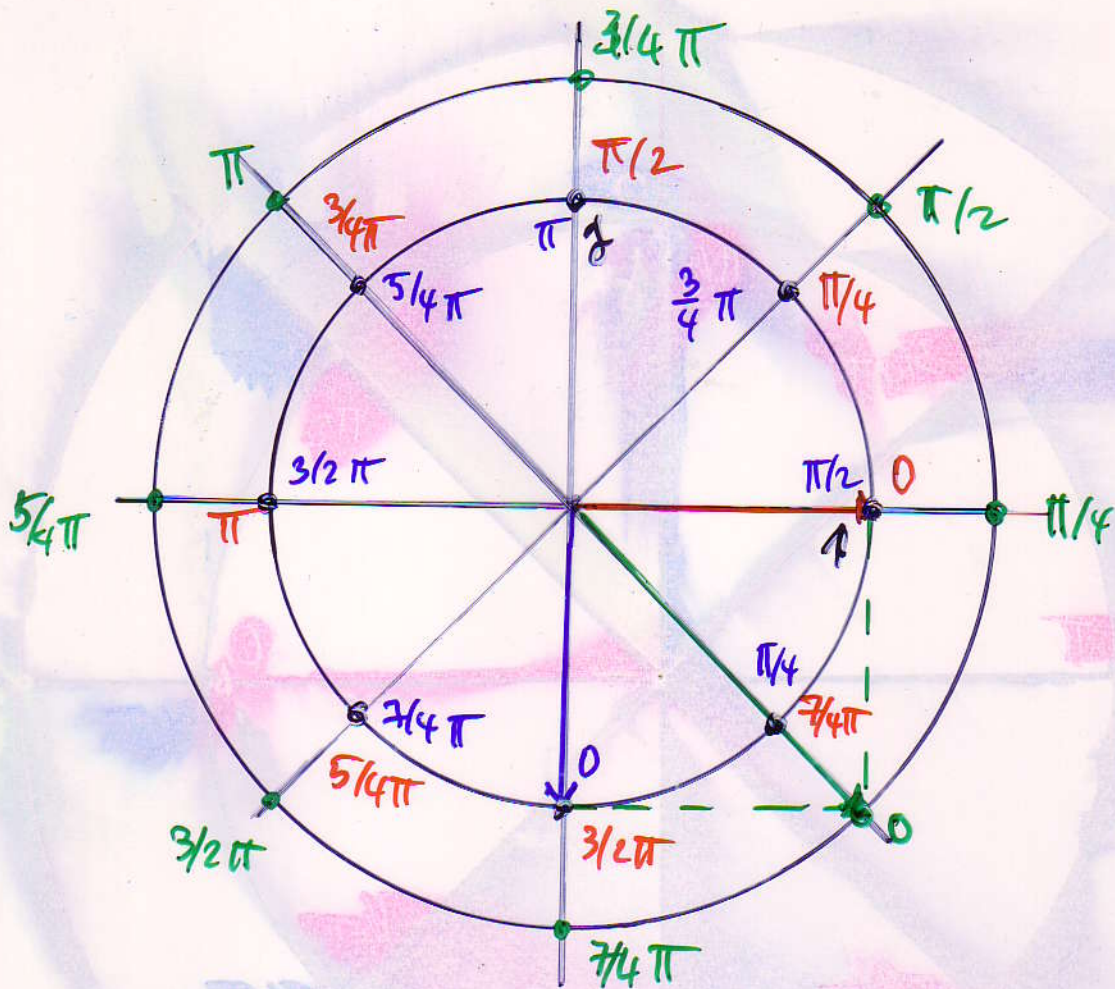


10.6



$$f_1(t) = e^{jt} = 1 \cdot e^{jt} = \cos t + j \sin t, \quad \operatorname{Re} f_1(t) = \cos t$$

$$f_2(t) = e^{jt - \frac{\pi}{2}} = e^{-j\frac{\pi}{2}} e^{jt} = -j(\cos t + j \sin t), \quad \operatorname{Re} f_2(t) = \cos t$$

$$f_3(t) = \sqrt{2} e^{jt - \pi/4} = \sqrt{2} e^{-j\pi/4} e^{jt} = (1-j) e^{jt}$$

$$= f_1(t) + f_2(t) \quad \operatorname{Re} f_3(t) = \cos t + \sin t$$