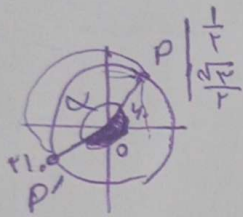


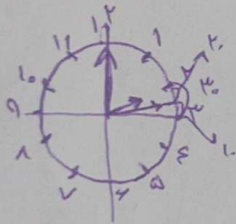
$$\frac{a \sin(\pi + \frac{\pi}{4}) + b \cos(\pi + \frac{\pi}{4})}{a \sin(\pi - \frac{\pi}{4}) + b \cos(\pi - \frac{\pi}{4})} = \frac{-a \sin(\frac{\pi}{4}) - b \cos(\frac{\pi}{4})}{-a \sin(\frac{\pi}{4}) + b \cos(\frac{\pi}{4})} = \tan \frac{\omega \pi}{4}$$

$$\cos(\frac{\pi}{4}) = \sin(\frac{\pi}{4}) \Rightarrow \frac{-a-b(\sin \frac{\pi}{4})}{-a+b(\cos \frac{\pi}{4})} = \tan \frac{\omega \pi}{4} \Rightarrow \frac{-a-b}{-a+b} \left(\tan \frac{\pi}{4} \right) = \tan \left(\frac{\omega \pi}{4} \right)$$



$$\frac{\omega \pi}{4} = \frac{\pi}{2} \Rightarrow \omega = 2$$

$$\omega \pi - \pi = 0 \Rightarrow \frac{\omega \pi}{4} = \frac{\pi}{2} \Rightarrow \omega = 2$$



$$\frac{\pi}{4} = \frac{180}{4} = 45^\circ$$

$$\alpha = \left| \frac{11M - 90}{4} \right| \Rightarrow \frac{11M - 90}{4} = 45 \Rightarrow 11M - 90 = 180$$

$$11M = 180 + 90 = 270$$

$$\frac{11M - 90}{4} = -45 \Rightarrow 11M - 90 = -180 \Rightarrow 11M = -90 \Rightarrow M = \frac{-90}{11}$$

$$M = \frac{50}{11}$$



$$\sin \frac{\pi}{4} = 1$$

$$\frac{m - \pi}{\omega} = 1 \Rightarrow m - \pi = \omega \Rightarrow m = \omega + \pi$$

$$\frac{m - \pi}{\omega} = -\frac{1}{\pi} \Rightarrow m - \pi = -\frac{\omega}{\pi} \Rightarrow m = \pi - \frac{\omega}{\pi}$$

$$-\frac{\pi}{4} < \alpha < \frac{\omega \pi}{4}$$

$$m = \left(\frac{\omega}{4}, \frac{\pi}{4} \right]$$

