

ایراد ندارد
 دوازدهم رفتار
 ۱۲
 [۱]

$$\frac{a \sin \frac{\pi}{4} + b \cos \frac{\pi}{4}}{a \sin \frac{11\pi}{4} + b \cos \frac{\pi}{4}} = \frac{-\frac{\sqrt{3}}{2}a - b\frac{\sqrt{3}}{2}}{-\frac{a}{2} + \frac{1}{2}b} = -\frac{\sqrt{3}}{2}$$

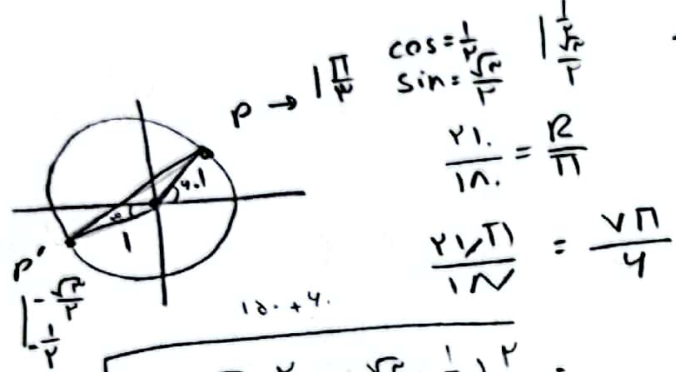
$$\tan = -\frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = -\sqrt{3}$$

$$\frac{-\sqrt{3}a - b\sqrt{3}}{-a + b} = -\frac{\sqrt{3}}{2}$$

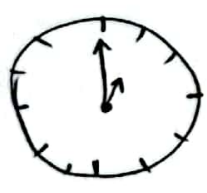
$$-\sqrt{3}a - b\sqrt{3} = \sqrt{3}a - \sqrt{3}b$$

$$-2\sqrt{3}a = -2\sqrt{3}b \Rightarrow a = b$$

$$\frac{b}{a} = 1$$

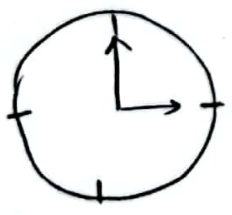


$$\sqrt{\left(\frac{1}{\sqrt{2}} + \frac{\sqrt{2}}{2}\right)^2 + \left(\frac{\sqrt{2}}{2} + \frac{1}{\sqrt{2}}\right)^2} = \sqrt{2} \times \frac{1+\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}+\sqrt{4}}{\sqrt{2}} + 1$$



$$\frac{D}{120} = \frac{90}{\pi} \quad \& \quad \frac{1}{9} = \frac{D}{120} = 20$$

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$$\frac{11}{2} M - 30h = 20$$

$$\frac{11}{2} M - 30 \times 3 = 20$$

$$\frac{11}{2} M - 90 \times 3 = -20$$

$$\frac{11}{2} M = 20 + 90$$

$$\frac{11}{2} M = 110$$

$$M = \frac{110 \times 2}{11} = 20$$

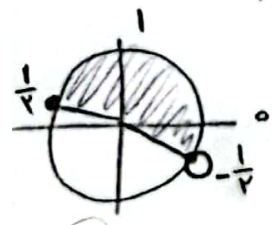
$$-\frac{\pi}{4} < \alpha \leq \frac{\pi}{4}$$

$$\sin \alpha = \frac{m-3}{5}$$

$$-\frac{5}{5} < \frac{m-3}{5} \leq \frac{5}{5}$$

$$-\frac{5}{5} < m-3 \leq \frac{5}{5}$$

$$\frac{1}{5} < m \leq 1$$



۱, ۲, ۳, ۴, ۵, ۶, ۷, ۸

۸, ۹, ۱۰

$$\tan 10 = \frac{1}{\sqrt{3}}$$

(4)

$$\frac{\sin(10) + k \cos(10)}{\cos(10) + \gamma \sin(10)} = \gamma$$

$$\frac{\sin(10) + k \cos(10)}{\cos(10) + \gamma \sin(10)} = \gamma$$

$\div \cos$

$$\frac{1 - k \tan}{1 - \gamma \tan}$$

$$1 - \frac{1}{\sqrt{3}} k = \gamma$$

$$-\frac{9}{\sqrt{3}} = 1 - \frac{1}{\sqrt{3}} k$$

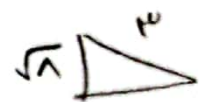
$$\frac{1}{\sqrt{3}} k = \frac{11}{\sqrt{3}} \quad (k = 11)$$

$$\frac{1 - \cos}{1 + \cos} = \gamma$$

$$1 - \cos = \gamma + \gamma \cos$$

$$\gamma \cos = -1$$

$$\cos = \frac{1}{\gamma}$$



$$\sin = \frac{1}{\sqrt{2}}$$

$$\tan = -\sqrt{2}$$

$$\cot = -\frac{1}{\sqrt{2}}$$

$$\frac{\tan(\frac{\pi}{4} - \alpha) - \cot(\pi - \alpha)}{\cot(\frac{\pi}{4} - \alpha) + \gamma \tan(\pi - \alpha)} \rightarrow \frac{\cot \alpha + \cot \alpha}{\tan \alpha - \gamma \tan \alpha}$$

$$= \frac{-\frac{1}{\sqrt{2}} - \frac{1}{\sqrt{2}}}{\frac{1}{\sqrt{2}} - \frac{1}{\sqrt{2}}}$$

$$= -\frac{2}{0} = -\frac{1}{\gamma}$$

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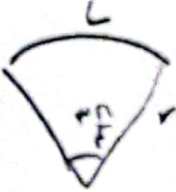
$$\frac{1 \cdot \pi}{1 \cdot \pi} = \frac{R}{\pi}$$

$$\frac{1 \cdot \pi}{1 \cdot \pi}$$

$$\frac{0 \cdot \pi}{\pi}$$

$$\frac{\gamma \cdot \pi}{\pi}$$

$$\frac{\gamma \cdot \pi}{\pi}$$

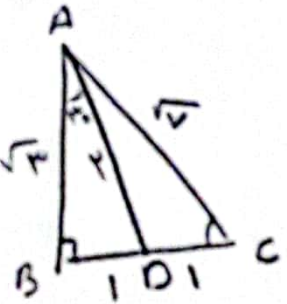


$$\frac{\pi \gamma}{\pi} \times \gamma A = \frac{\pi \gamma}{\pi} \times \gamma B$$

$$\frac{\gamma A}{\gamma B} = \frac{\frac{\pi \gamma}{\pi}}{\frac{\pi \gamma}{\pi}} = \frac{\gamma}{\gamma}$$

$$\frac{SA}{SB} = \frac{\gamma \pi}{\gamma \pi} = \frac{9}{\pi}$$

(9)



$$\frac{\sqrt{2}}{BC} \times BC = \sqrt{2}$$

$$BC = \sqrt{2}$$

$$\alpha + \mu = \sqrt{2}$$

$$\sin \mu = \gamma \sin \alpha \cos \alpha$$

$$\gamma \times \frac{\sqrt{2}}{\sqrt{2}} \times \frac{\gamma}{\sqrt{2}} = \frac{\sqrt{2}}{\sqrt{2}}$$

$$\sin \mu = \frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}}$$

