

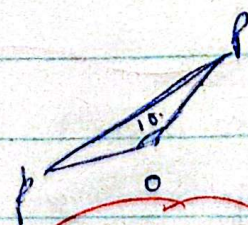
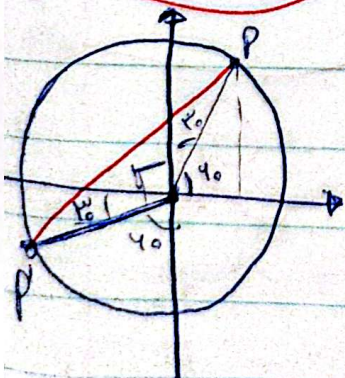
$$\frac{a \sin \frac{\pi}{4} + b \cos \frac{\pi}{4}}{a \sin \frac{\pi}{4} + b \cos \frac{\pi}{4}} = \tan \frac{\pi}{4}$$

سوال ۱

$$\frac{-\frac{\sqrt{3}}{2}a - \frac{\sqrt{3}}{2}b}{\frac{1}{2}a + \frac{1}{2}b} = -\frac{\sqrt{3}}{1} = \frac{-\sqrt{3}(a+b)}{\frac{1}{2}(b-a)} = \frac{-2\sqrt{3}(a+b)}{b-a}$$

$$\frac{(a+b)}{(b-a)} = \frac{1}{\sqrt{3}} \quad \begin{aligned} \sqrt{3}a + \sqrt{3}b &= b - a \\ \sqrt{3}a &= -\sqrt{3}b \rightarrow b = -a \end{aligned}$$

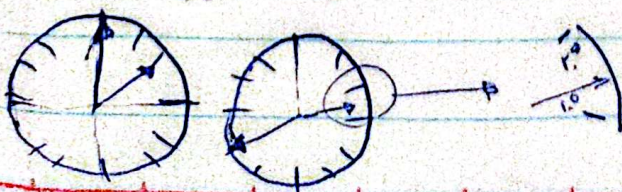
$$\frac{-\sqrt{3}a}{a} = \boxed{-\sqrt{3}}$$



$$PP' = \sqrt{1^2 + (\sqrt{3})^2 - 2 \cdot 1 \cdot \sqrt{3} \cdot \cos 120^\circ} = \sqrt{1 + 3 + \sqrt{3}} = \sqrt{4 + \sqrt{3}}$$

$$POPP' = 1 + \sqrt{4 + \sqrt{3}}$$

$$\frac{\pi}{a} \times \frac{180^\circ}{\pi} = (2^\circ) \rightarrow \text{angle} \rightarrow \epsilon'$$



$$\boxed{2^\circ \epsilon'}$$

$$\left| \frac{11M}{r} - 9.4 \right| = 2.0$$

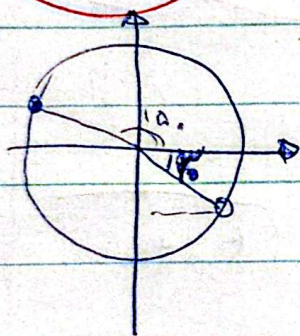
$$\frac{11M}{r} - 9.4 = 2.0 \rightarrow M = 2.1$$

$$\left| \frac{11M}{r} - 9.4 \right| = 2.0$$

$$\frac{11M}{r} - 9.4 = -2.0 = M = \frac{12.0}{11} = 1.1$$

$$M = 2.1$$

بیت نقیہ



$$-\frac{1}{r} < \sin \theta < 1$$

$$-\frac{1}{r} < \frac{m-3}{a} < 1 \rightarrow -\frac{a}{r} < m-3 < a$$

$$\frac{1}{r} < m < 1 \rightarrow$$

$$m < 1$$



سوال 2

$$\frac{\sin(10^\circ + 15^\circ) + K \cos(10^\circ - 15^\circ)}{\cos(10^\circ - 15^\circ) + K \sin(10^\circ + 15^\circ)} = \frac{\sin 10^\circ + K \sin 10^\circ}{\cos 10^\circ - K \sin 10^\circ}$$

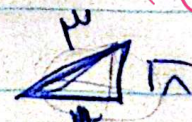
$$\frac{\sin 10^\circ}{\cos 10^\circ} = \frac{K}{1} = \frac{1}{2}$$

$$\frac{K-15}{-K-15} = 2 \rightarrow$$

$$\frac{K-15}{-K-15} = 2 \rightarrow K = 24$$

$$1. \log m = 2 + K \log m \rightarrow \log m = -\frac{1}{K}$$

$$\sin m = \frac{\sqrt{A}}{3}$$



$$\frac{\cos m + \cos m}{\tan m + \tan m} = \frac{K \cos m}{- \tan m} = -\frac{K}{\tan m}$$

$$\tan m = 2 \tan m$$

$$-\frac{K}{\tan m} = -\frac{1}{\frac{1}{2}} = -2$$

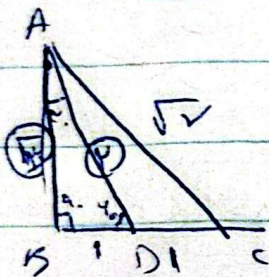
دست کن !!

$$\frac{10 \text{ N}}{1 \text{ m}} \Rightarrow \frac{4 \text{ N}}{1 \text{ m}}$$

9/15

$$\alpha R = \alpha R \Rightarrow \frac{4 \text{ N}}{1} R_A = \frac{4 \text{ N}}{1} R_B \Rightarrow \frac{R_A}{R_B} = \frac{4}{4}$$

$$\frac{S_A}{S_B} = \frac{9}{\Sigma}$$



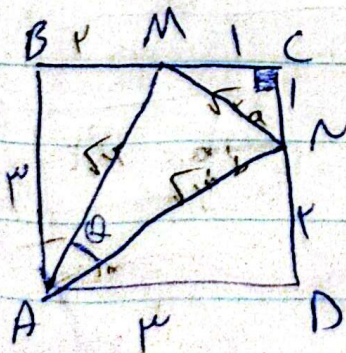
$$\sqrt{2} = S_{AB} = \frac{\sqrt{2} \times BC}{2} = \sqrt{2}$$

9/15

$$BC = 2 \rightarrow DC = 1 \quad AC = \sqrt{1 + 2} = \sqrt{3}$$

$$= \sqrt{2}$$

$$S_{\sin \angle C} = \sqrt{2} \sin \angle C \Rightarrow \sqrt{2} \times \frac{1}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{3}} = \frac{\sqrt{2}}{\sqrt{3}}$$



$$MN = \sqrt{1 + 1} = \sqrt{2}$$

$$AM = AN = \sqrt{(1)^2 + (1)^2} = \sqrt{2}$$

$$(\sqrt{2})^2 = (\sqrt{2})^2 + (\sqrt{2})^2 - 2(\sqrt{2})(\sqrt{2}) \cos \theta \Rightarrow \cos \theta = \frac{1}{2}$$

$$\theta = 60^\circ \quad \angle C = 90^\circ \Rightarrow \angle C = 90^\circ - 60^\circ = 30^\circ$$

$$\sin \theta = 1 - \cos \theta = 1 - \left(\frac{1}{2}\right) = \frac{1}{2} \Rightarrow \sin \theta = \frac{1}{2}$$

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