

دوم رستم

تالیف ۱۹

درس الیوانی ۲۰

سؤال ۱) الف) $\frac{D}{1n_0} = \frac{R}{\pi} \rightarrow \frac{4V}{1n_0} = \frac{\square}{\pi} \rightarrow \frac{4V\pi}{1n_0} = \frac{3\pi}{1n_0} = \alpha$

ب) $\frac{12\omega}{1n_0} = \frac{\alpha}{\pi} \rightarrow \alpha = \frac{12\omega\pi}{1n_0} = \frac{2\omega\pi}{34}$

ج) $\frac{5\pi}{12\pi} = \frac{\alpha}{1n_0} \rightarrow \alpha = 1\omega^0$

د) $\frac{4\pi}{9\pi} = \frac{\alpha}{1n_0} \rightarrow \alpha = 1n_0^0$

سؤال ۲)

$\frac{G}{1n_0} = \frac{D}{1n_0} \rightarrow \frac{12\omega a}{9} = \frac{\square}{1n_0} \rightarrow \frac{4\omega}{1} a$

$\frac{R}{\pi} = \frac{D}{1n_0} \rightarrow \frac{a\pi}{\pi} = \frac{\square}{1n_0} \rightarrow \frac{4\omega}{1} a$

$\Rightarrow \frac{4\omega}{1} a + \frac{4\omega}{1} a + \frac{4\omega}{1} a = \frac{4\omega}{1} a = 1n_0 \Rightarrow \alpha = 4$

سؤال ۳) الف) $\left(\frac{1}{\mu} \times \frac{\sqrt{\mu}}{1}\right) - \left(\frac{\sqrt{\mu}}{1} \times \frac{1}{\mu}\right) - 1 + \mu = 1$

ب) $\frac{\left(\frac{\sqrt{\mu}}{\mu}\right)^{\mu} + 1^{\mu} + (\sqrt{\mu})^{\mu}}{\sqrt{\mu} - \frac{\sqrt{\mu}}{\mu}} = \frac{\frac{\mu}{9} + \frac{9}{9} + \frac{27}{9}}{\frac{3\sqrt{\mu} - \sqrt{\mu}}{\mu}} = \frac{\frac{39}{9}}{\frac{2\sqrt{\mu}}{\mu}} = \frac{13}{3} \times \frac{\sqrt{\mu}}{\sqrt{\mu}} = \frac{13\sqrt{\mu}}{3}$

روز اهدای عضو، اهدای زندگی

$$-\left(\frac{1}{\mu} \times \frac{1}{\mu}\right) + \left(\frac{\sqrt{\mu}}{\mu} \times \frac{\sqrt{\mu}}{\mu}\right) = -\frac{1}{\varepsilon} + \frac{\mu}{\varepsilon} = \frac{\mu}{\varepsilon} = \frac{1}{\mu} \quad \text{سؤال ۱۴}$$

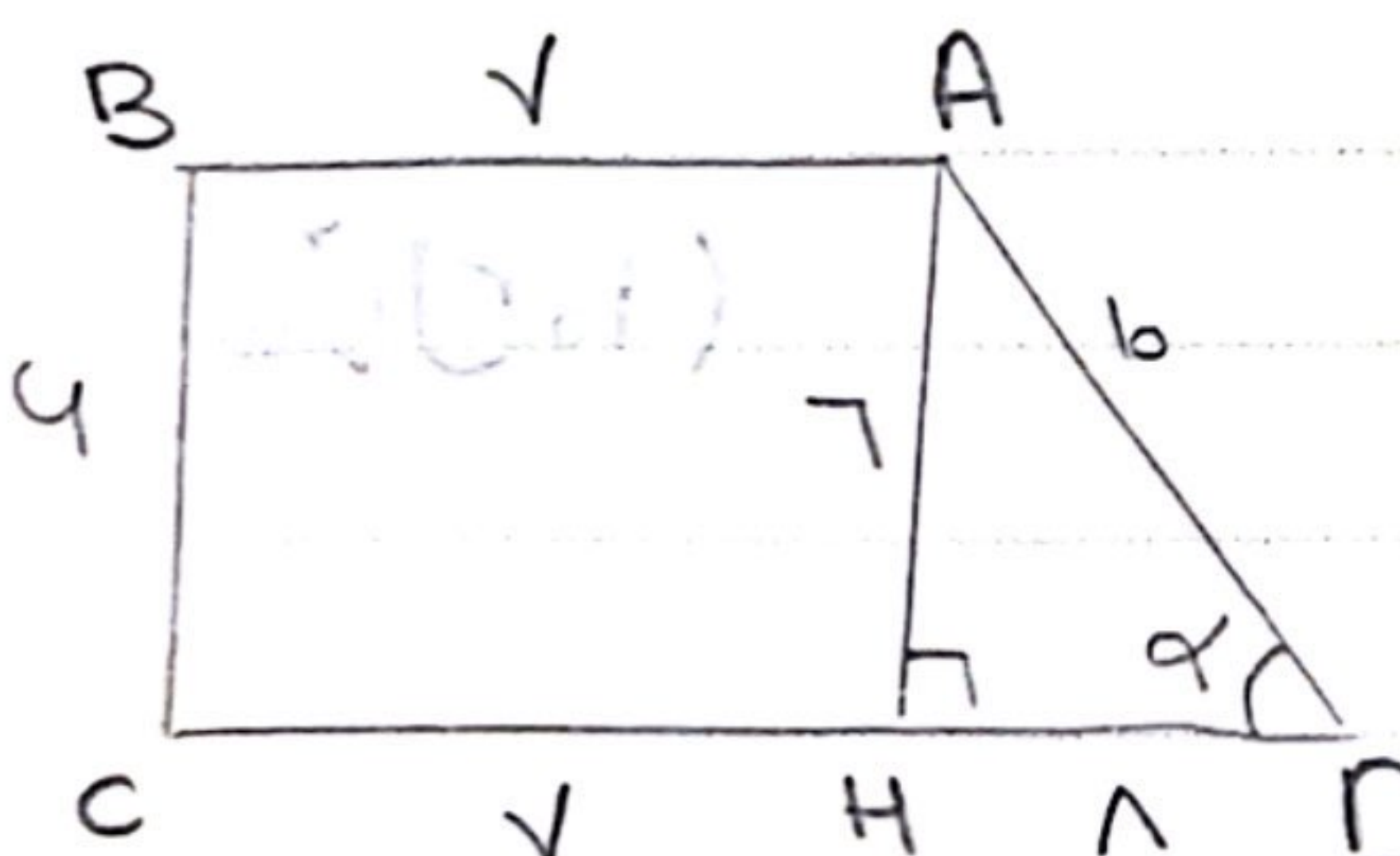
$$\sin^{\mu} \theta = \frac{1}{\mu} \xrightarrow{\text{زایو بادی}} \sin \theta = \frac{1}{\sqrt{\mu}} = \frac{\sqrt{\mu}}{\mu} \rightarrow \theta = 45^{\circ} \xrightarrow{\text{بسیار آسان}} \boxed{\tan \varepsilon = 1}$$

$$\tan \theta = \frac{\frac{\mu \sqrt{\mu}}{\mu} \left(1 - \frac{\mu}{\mu}\right)}{\left(1 - \frac{\mu}{\mu}\right)} = \frac{\frac{\mu \sqrt{\mu}}{\mu}}{\frac{\mu}{\mu}} = \sqrt{\mu} \rightarrow \theta = 70^{\circ} \rightarrow \frac{70}{110} = \frac{R}{\pi} \rightarrow \boxed{R = \frac{\pi}{\mu}}$$

سؤال ۱۵

$$\tan \theta = \frac{\sin \theta}{\cos \theta} = \omega \rightarrow \omega \cos \theta = \sin \theta \quad \text{سؤال ۱۶}$$

$$\rightarrow \frac{10 \cos \theta - \cos \theta}{\omega \cos \theta - \mu \cos \theta} = \frac{1 \varepsilon \cos \theta}{\cos \theta} = \boxed{1 \varepsilon}$$



$$\sin \alpha = \frac{7}{10} = \frac{AH}{AD} \rightarrow AD = 10$$

$$HD = \sqrt{10^2 - 7^2} = 1$$

سؤال ۱۷

$$\text{perimeter} \rightarrow 10 + 1 + 7 + 4 + 7 = \boxed{39}$$

$$\sin 30^\circ = \frac{1}{2} = \frac{AB}{AD} \rightarrow AB = 5$$

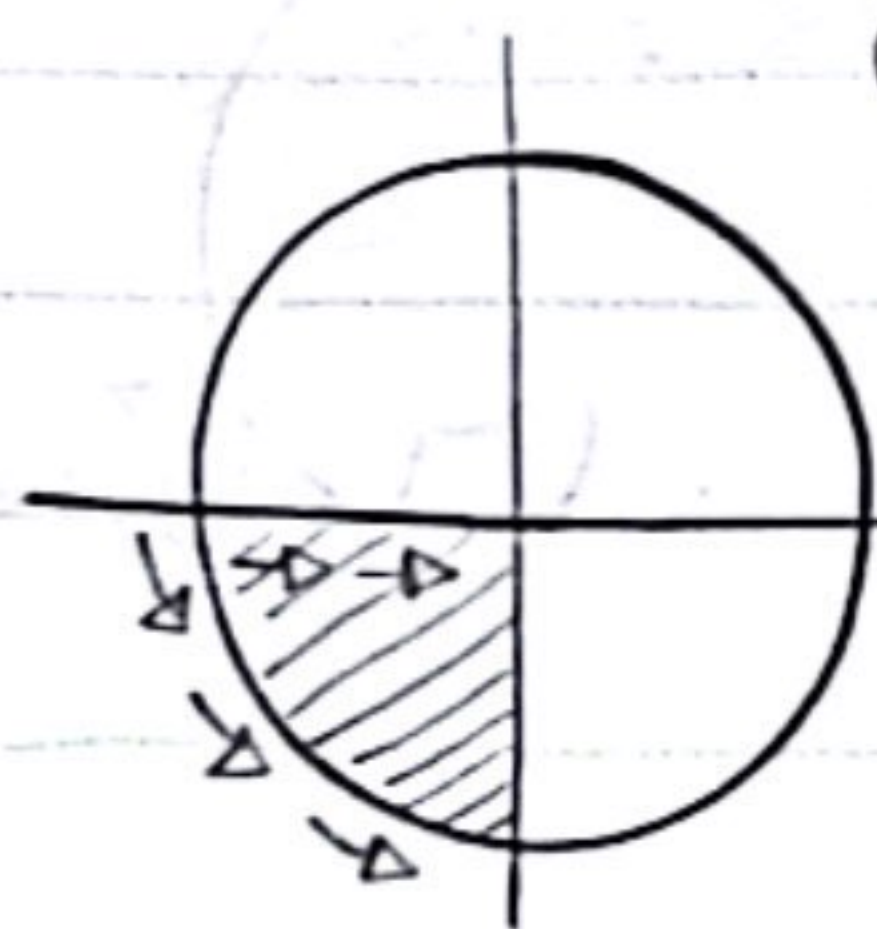
سؤال ۱۱

$$BD = \sqrt{10^2 - 5^2} = \sqrt{75} = 5\sqrt{3}$$

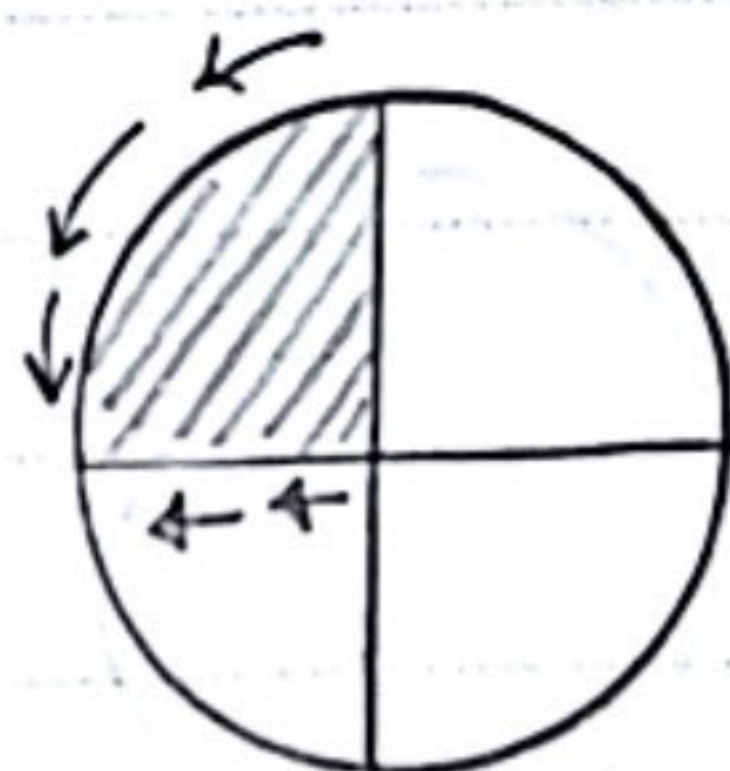
$$\tan 45^\circ = \frac{BC}{AB} = 1 \rightarrow BC = 5$$

$$BD - BC = DC \rightarrow 5\sqrt{3} - 5 = \boxed{5(\sqrt{3} - 1)}$$

سؤال ۹
الف) با توجه به شکل بدست آورده $\sin$ ناحیه ۳



و $\cos$ افزایش می یابد (عیناً بشبه دراصل جزوه)



ب) ناحیه ۲

$$1 + \tan^2 \alpha = \frac{1}{\cos^2 \alpha} \rightarrow 1 + \frac{1}{9} = \frac{1}{\cos^2 \alpha}$$

سؤال ۱۰

$$\frac{10}{9} = \frac{1}{\cos^2 \alpha} \rightarrow \cos \alpha = \frac{3}{10}$$

$$\sin^2 \alpha + \cos^2 \alpha = 1 \rightarrow \sin^2 \alpha = 1 - \cos^2 \alpha$$

$$\sin^2 \alpha = 1 - \frac{9}{10} = \frac{1}{10} \rightarrow \sin = -\frac{1}{\sqrt{10}} = \frac{-\sqrt{10}}{10}$$