

نام و نام خانوادگی: آرشید نواب در پاسخنامه تشریحی تکلیف شماره کلاس دهم ۱۳.....

$$الف) \tan \frac{11\pi}{6} + \frac{\sin \frac{11\pi}{6}}{2\pi + \frac{11\pi}{6}} \cos \frac{11\pi}{6} \Rightarrow -1 + \frac{\sqrt{2}}{2} \left(-\frac{\sqrt{2}}{2} \right) = -1 + \frac{1}{2} = -\frac{1}{2} = \underline{-\frac{1}{2}}$$

$$ب) \tan \frac{11\pi}{4} \frac{\sin \frac{11\pi}{4}}{2\pi + \frac{11\pi}{4}} + \cos \frac{11\pi}{4} = \frac{\sqrt{2}}{2} \times \frac{-\sqrt{2}}{2} + \frac{1}{2} = 0$$

$$\cot \alpha = 4 \Rightarrow \frac{\cos \alpha}{\sin \alpha} = 4 \Rightarrow \cos \alpha = 4 \sin \alpha$$

$$\frac{11 \sin \alpha - \sin \alpha}{4 \sin \alpha + \sin \alpha} = \frac{11 \sin \alpha}{5 \sin \alpha} = \underline{\frac{11}{5}}$$

$$\sin \alpha = 4 \cos \alpha \quad \alpha \in \left[-\frac{\pi}{2}, \frac{\pi}{2} \right]$$

$$\frac{\sin \alpha}{\cos \alpha} = 4$$

$$\cos^2 \alpha = \frac{1}{1 + \tan^2 \alpha} \Rightarrow \cos \alpha = \pm \frac{1}{\sqrt{5}} \Rightarrow \underline{\frac{1}{\sqrt{5}}}$$

$$\cos \left(\frac{11\pi}{6} + \alpha \right) = \sin \alpha = \frac{\sqrt{2}}{2} \Rightarrow \underline{\frac{\sqrt{2}}{2}}$$

$$\sin \left(\frac{11\pi}{6} + \alpha \right) = -\cos \alpha = -\frac{\sqrt{2}}{2} \Rightarrow \underline{-\frac{\sqrt{2}}{2}}$$

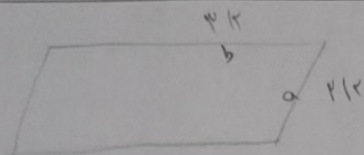
$$\tan \alpha = \frac{1}{4} \Rightarrow 1 + \frac{1}{16} = \frac{1}{\cos^2 \alpha} \Rightarrow \cos \alpha = \frac{4}{5} \Rightarrow \underline{\frac{4}{5}}$$

$$2 \sin^2 \alpha + \cos^2 \alpha = \frac{1}{4} \Rightarrow \sin^2 \alpha + 1 = \frac{1}{4} \Rightarrow \sin^2 \alpha = -\frac{3}{4} \quad \text{و} \quad \cos^2 \alpha = 1 - \sin^2 \alpha = 1 - \left(-\frac{3}{4} \right) = \frac{7}{4} \Rightarrow \underline{\frac{7}{4}}$$

$$\tan^2 \alpha = \frac{\sin^2 \alpha}{\cos^2 \alpha} = \frac{\frac{1}{4}}{\frac{7}{4}} = \underline{\frac{1}{7}}$$

$$S = \frac{1}{p} ah \sin \alpha \Rightarrow \frac{1}{p} (p)(\sqrt{p}) \sin \alpha = f/w \Rightarrow \sqrt{p} \sin \alpha = f/w \Rightarrow \sin \alpha = \frac{f/w}{\sqrt{p}} \times \frac{\sqrt{p}}{\sqrt{p}} = \frac{\sqrt{p}}{p}$$

$$\rightarrow \sin \alpha \begin{cases} \sin 90^\circ \\ \sin 180^\circ \end{cases} \Rightarrow \frac{1 \cdot p}{p} = 1$$



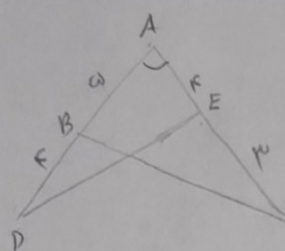
$$S = ab \sin \alpha \Rightarrow \omega^2 = (p)(p) \sin \alpha \Rightarrow \frac{1}{p}$$

$$\Rightarrow \omega f = p \left(\frac{1}{p} \right) \Rightarrow \omega f = p \Rightarrow p = 1 \Rightarrow p = \sqrt{p} \times$$

$$\star \rightarrow p = p(\sqrt{p}) = 4\sqrt{p}$$

$$p = p(\sqrt{p}) = 9\sqrt{p}$$

$$\Rightarrow P_{\square} = p(a+b) = p(4\sqrt{p} + 9\sqrt{p}) = p \cdot 13\sqrt{p}$$



$$\triangle ABC - \triangle DEF = 1, \sqrt{a}, \tan A = 1$$

$$S_{ABC} = \frac{1}{p}(a)(b) \sin A \Rightarrow S_{ABC} = \frac{p}{p} \sin A \xrightarrow{\text{mod } \sin A} \frac{p}{p} \sin A - 1 \sin A = \frac{p}{p} \sin A$$

$$S_{ADE} = \frac{1}{x}(y)(z) \sin A = 1 \sin A = S_{ADE}$$

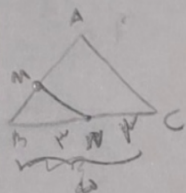
$$\cos A = 1 - \sin^2 A = -1 \Rightarrow -\sqrt{1}$$

$$\tan A = \frac{a}{-b} \times \frac{\sqrt{p}}{\sqrt{p}} = \frac{-a\sqrt{p}}{p}$$

$$\frac{p}{p} \sin A = 1, \sqrt{a}$$

$$\sin A = \frac{1 \cdot \sqrt{a}}{p} = \frac{1}{p}$$

$$p \cdot BN = WC \rightarrow \frac{BN}{NC} = \frac{p}{p} \Rightarrow \frac{BN}{NC} = 1, BC = 2a$$



$$S_{ADC} = \frac{1}{p} a h \Rightarrow \frac{1}{p} a h = \frac{1}{p} a h$$

$$\frac{S_{ABW}}{S_{ABC}} \Rightarrow \frac{BN}{BC}$$

$$\rightarrow \frac{BN}{BC} \times \frac{BM}{BA} = \frac{1}{p} \Rightarrow \frac{BN}{BC} \times \frac{BM}{BA} = \frac{1}{p} \Rightarrow \frac{BM}{BA} = \frac{1}{p} \Rightarrow \frac{1}{p} \times \frac{a}{p} = \frac{a}{p} \Rightarrow BM = a$$

$$\frac{BM}{AM} = \frac{a}{p}$$

$$AM = BA - BM = 9 - a$$

$$\frac{|\sin \alpha|}{\cos \alpha} = \frac{1}{\cos \alpha} \rightarrow \frac{|\sin \alpha|}{\cos \alpha} = \tan \alpha \rightarrow \frac{|\sin \alpha|}{\cos \alpha} = \frac{\sin \alpha}{\cos \alpha} \Rightarrow |\sin \alpha| \cos \alpha = \sin \alpha \cos \alpha$$

$$|\sin \alpha| = \sin \alpha$$

$$p \cdot |\sin \alpha| = \sin \alpha \geq 0$$

$$\frac{1}{\sqrt{\cos^2 \alpha}} - \tan \alpha + \frac{1 + \sin \alpha}{1 \cos \alpha} = \frac{1}{1 \cos \alpha} - \tan \alpha = \frac{1 + \sin \alpha}{1 \cos \alpha}$$

$$1 - \sin \alpha = 1 + \sin \alpha \Rightarrow \sin \alpha = 0$$

$$\frac{1 + \sin \alpha}{\cos \alpha (1 \cos \alpha)} = \frac{1 + \sin \alpha}{- \cos \alpha}$$