نام و نام خانوادگی ..... پاسخنامه تشریحی تکلیف شماره ..۲۶.. کلاس .....

۱۹,۷۵

۲

۱

$S_{\square} = ab\sin\alpha = 4n^2\sin 150 = 8$

$4n^2 = 8 \rightarrow n^2 = 18 \rightarrow n = 3\sqrt{2}$

$P_{\square} = 10n = 30\sqrt{2}$ ✓

۲

۲

$S_{\triangle} = \frac{1}{2}ab\sin\alpha$

$S_{ABC} - S_{ADE} = 17.5$

$\frac{AB \cdot AC\sin A - AE \cdot AD\sin A}{2} = 17.5$

$36\sin A - 28\sin A = 35$

$8\sin A = 35 \rightarrow \sin A = 0.8 = \frac{4}{5}$

$\rightarrow \tan A = \frac{1}{\sqrt{24}} = \frac{\sqrt{24}}{24}$ ✓

۳

۳

$\frac{|\sin\alpha|}{\cos\alpha} = -\frac{1}{\cot\alpha} = -\frac{\sin\alpha}{\cos\alpha}$

$\sin\alpha < 0$

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

$-\frac{\sin\alpha}{\cos\alpha} = \frac{\sin\alpha}{|\cos\alpha|}$

$\cos\alpha < 0$

ناحیه سوم مثلثاتی $\alpha$ ✓

۴

۴

$\tan\alpha = m_{bi}$

$\tan\alpha = -\frac{3}{4}$

$\tan(\frac{\pi}{2} - \alpha) = \cot\alpha = -\frac{4}{3}$ ✓

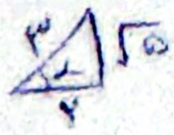
۵

۵

$\frac{3\cos(245^\circ) - 2\sin(105^\circ)}{\sin(20^\circ) - \cos(114^\circ)} = \frac{3\cos\frac{3\pi}{2} - 22^\circ(=) \quad 2\sin\pi - 22^\circ}{\sin\pi + 22^\circ(=) \quad \cos\frac{3\pi}{2} + 22^\circ} = \frac{-3\sin 22^\circ - 2\sin 22^\circ}{-\sin 22^\circ - \sin 22^\circ} = \frac{-5\sin 22^\circ}{-2\sin 22^\circ}$

$= 2.5$

$\cos\alpha = \frac{2}{3}$ 




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

$\tan\alpha = \frac{\sqrt{5}}{2}$

$$\frac{\sin(\frac{\pi}{2}+\alpha) - \sin(\alpha-\pi)}{|\tan^2\alpha - 1|} = \frac{\cos\alpha + \sin\alpha}{|\tan^2\alpha - 1|} = \frac{\frac{2}{3} - \frac{\sqrt{5}}{3}}{|\frac{5}{4} - 1|} = \frac{\frac{2-\sqrt{5}}{3}}{\frac{1}{4}} = \frac{8-4\sqrt{5}}{3}$$

(۲)

---

$\sin\alpha = 2\cos\alpha \rightarrow \tan\alpha = 2$ 


$\cos\alpha = -\frac{1}{\sqrt{5}} = -\frac{\sqrt{5}}{5}$

(۲)

۲

---

$\tan\alpha = m_{\text{بد}} \xrightarrow{\alpha > 90^\circ} \tan(90^\circ + \theta) = m_{\text{بد}}$

$2mx + (m^2-1)y = 4$

$\frac{-2m}{m^2-1} = \sqrt{3} \rightarrow \sqrt{3}m^2 + 2m - \sqrt{3} = 0$

$|m_2 - m_1| = \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{16}}{\sqrt{3}} = \frac{4}{\sqrt{3}} = \frac{4\sqrt{3}}{3}$

(۲)

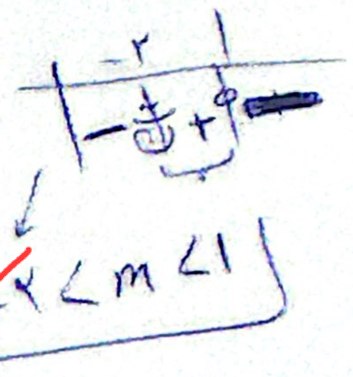
۱

---

$-\frac{\pi}{6} < x < \frac{\pi}{2}$ 

$0 < \frac{\pi}{6} - x < \frac{\pi}{2}$

$0 < \tan(\frac{\pi}{6} - x) \rightarrow 0 < \frac{1-m}{2+m}$




$-2 < m < 1$

(۲)

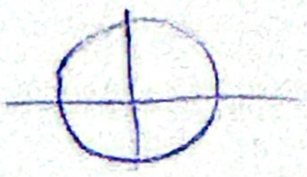
۹

---

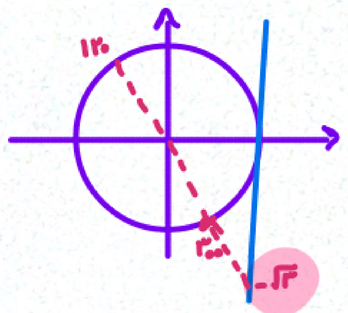
$\tan 120^\circ \quad \sin 225^\circ$

$\tan(300^\circ)\cos(210^\circ) + \tan(450^\circ)\sin(585^\circ) =$

$300 + 120 = 420$ ، $450 - 360 = 90$ ، $585 - 360 = 225$



$= -\frac{1}{\sqrt{3}} \times -\frac{\sqrt{3}}{2} + (-\sqrt{3})(\frac{\sqrt{2}}{2}) = 0$




$-\sqrt{3}$ دقت!

(۱,۷۵)

۱۰