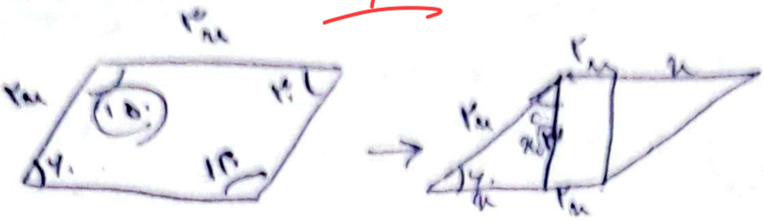
اسماعیل زینلوسی یازدهم ریاضی ۸ تجربی

۱۹,۲۵

(۱)

(۲)



$\rightarrow S = 3x \times 2x \times \sin 150 = 3x \times 2x \times \frac{1}{2} = 3x^2 = 54$

$\rightarrow 18 = x^2 \rightarrow x = 3\sqrt{2} \rightarrow$ محیط $= 2(3x + 2x) = 10x = \boxed{10\sqrt{18}}$

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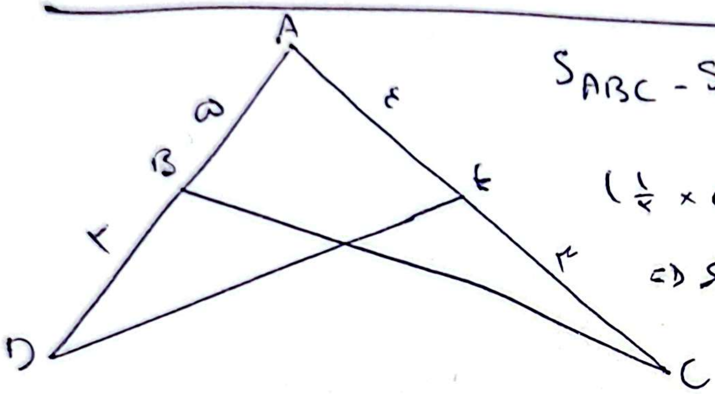
(۲)



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

$(\frac{1}{2} \times 5 \times 7 \times \sin A) - (\frac{1}{2} \times 4 \times 7 \times \sin A)$

$\Rightarrow \sin A(\frac{35}{2} - \frac{28}{2}) = \sin A(\frac{7}{2}) = \frac{7}{4} = 1{,}75$

$\sin A = \frac{7}{4} \times \frac{2}{7} = \frac{1}{2} \rightarrow A = 30^\circ$

$\boxed{\tan A = \tan 30^\circ = \frac{\sqrt{3}}{3}}$

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(۳)

(۲)

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

$\Rightarrow \boxed{\sin \alpha < 0}$

$\frac{1}{|\cos \alpha|} - \frac{\sin \alpha}{\cos \alpha} = \frac{1 - \sin \alpha}{|\cos \alpha|} \longrightarrow$ فقط اگر $\cos \alpha > 0$ باشد

این ۲ عبارت برابر خواهد بود $\boxed{\cos \alpha > 0}$

$\Rightarrow \alpha \begin{cases} \sin \alpha < 0 \\ \cos \alpha > 0 \end{cases} \Rightarrow$ ناحیه چهارم

جواب سوال

(۴) (۲)

$$\tan(\frac{\pi}{2}-\alpha)=\tan(90-\alpha)=\cot\alpha=-\cot(180-\alpha)=\frac{-4}{3}$$ ← جواب

$$\frac{2}{1.5}=\frac{2}{\frac{3}{2}}=\frac{4}{3}$$

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(۵) (۲)

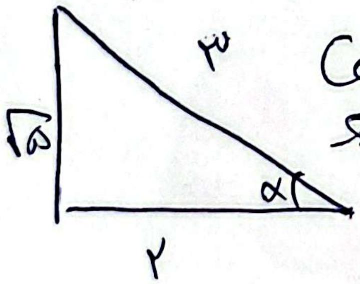
$$\frac{3\cos(270+22)-2\sin(180-22)}{-\sin(180+22)-\cos(270+22)}=\frac{-3\sin22-2\sin22}{\sin22-\sin22}=\frac{-5\sin22}{-2\sin22}=\frac{-5}{-2}=\frac{5}{2}$$ ← جواب

$\sin(\alpha-\pi)=-\sin\alpha$

(۶) (۱/۷۵)

دقت!

$$\frac{\cos\alpha+\sin\alpha}{|\tan^2\alpha-1|}=\frac{\frac{2}{3}-\frac{\sqrt5}{3}}{|\frac{5}{4}-1|}=\frac{\frac{2-\sqrt5}{3}}{\frac{1}{4}}=\frac{8-4\sqrt5}{3}$$ ← جواب



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

$\sin\alpha=\frac{-\sqrt5}{3}$

$\tan\alpha=\frac{-\sqrt5}{2}$

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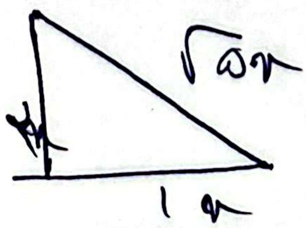
(۱) (۲)

$$\frac{\sin\alpha}{\cos\alpha}=2\longrightarrow\sin\alpha=2\cos\alpha\longrightarrow\tan\alpha=\frac{\sin\alpha}{\cos\alpha}=\frac{2\cos\alpha}{\cos\alpha}=2=\tan\alpha$$



$$\to\cos\alpha=\frac{-1}{\sqrt5}$$

امیرحسین یزدخواستی یازدهم A تجربی

(۱)

$$\tan 60^\circ = \sqrt{3} \Rightarrow \frac{-2m}{m^2-1} = \sqrt{3}$$

(۲)

$$\sqrt{3}m^2 - \sqrt{3} = -2m \longrightarrow \sqrt{3}m^2 + 2m - \sqrt{3} = 0 \xrightarrow{\text{ریشه}} m^2 + 2m - 3 = 0$$

$$\Rightarrow (m+3)(m-1) = 0 \rightarrow m = -3 \text{ و } m = +1 \xrightarrow{\div\sqrt{3}} m = \frac{-3}{\sqrt{3}} \text{ و } \frac{+1}{\sqrt{3}}$$

$$\Rightarrow \text{و} \quad m = \frac{-3\sqrt{3}}{3} \text{ و } \frac{\sqrt{3}}{3} \longrightarrow |m_2 - m_1| = \left|\frac{-3\sqrt{3} - \sqrt{3}}{3}\right| = \left|\frac{-4\sqrt{3}}{3}\right|$$

$$\Rightarrow \boxed{|m_2 - m_1| = \frac{4\sqrt{3}}{3}} \checkmark$$

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(۹) (۱,۵)

$$\frac{\pi}{6} - \alpha = \alpha \longrightarrow \frac{-\pi}{6} < \alpha < \frac{+\pi}{6} \longrightarrow 0 < \alpha < \frac{\pi}{2} \rightarrow 0 < \text{Hundred}$$

$$\Rightarrow 0 < \frac{1-m}{2+m} < 1 \longrightarrow \frac{+1}{\frac{1-m}{2+m}} > 0 \rightarrow \boxed{\frac{-2 \quad +1}{-3 \quad +\phi -}} \checkmark$$

$$\frac{+1}{\frac{1-m}{2+m}} < 1 \Rightarrow$$

$$\frac{1-m-2-m}{2+m} = \frac{-1-2m}{2+m} < 0 \rightarrow \boxed{\frac{-2 \quad -\frac{1}{2}}{-3 \quad +\phi -}}$$

$$\boxed{\left(-\frac{1}{2}, +1\right)}$$

جواب

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(۲) (۱

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

$\frac{+3}{4}$ $\frac{-3}{4}$

جواب

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۹ ربع اول $0 < \frac{\pi}{4} - x < \frac{\pi}{2}$ $\xrightarrow{+\frac{\pi}{4}}$ $-\frac{\pi}{4} < -x < \frac{\pi}{4}$

$\frac{1-m}{2+m} > 0 \rightarrow$

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$(-2, 1)$