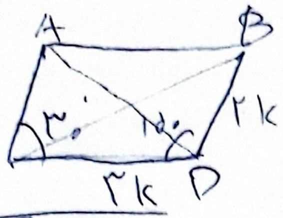
نام و نام خانوادگی .... پاسخنامه تشریحی تکلیف شماره ۲.۶ کلاس ....

۱



~~$CB = \sqrt{4k^2 + 9k^2 + 12k \times \frac{\sqrt{3}}{2}} = \sqrt{13k^2 + 6\sqrt{3}k}$~~

~~$AD = \sqrt{13k^2 - 6\sqrt{3}k}$~~ → ~~$AD \times CB =$~~

$S = 6k^2 \times \frac{1}{2} \rightarrow 3k^2 = 54$

$\rightarrow k = \sqrt{18} = 3\sqrt{2} \rightarrow \frac{P}{2} = 30\sqrt{2}$

۲

$S_{ABC} = \frac{15}{4} \times 7 \times \sin A$

$S_{ADE} = \frac{1}{2} \times 7 \times 4 \times \sin A$

$7\sin A = 3.5$

$\rightarrow \sin A = \frac{1}{2} \rightarrow \tan A = \frac{\sqrt{3}}{3}$

۳

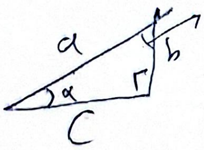
$1 + \tan^2\alpha = \frac{1}{\cos^2\alpha}$

$\frac{|\sin\alpha|}{\cos\alpha} = -\tan\alpha - \frac{\sin\alpha}{\cos\alpha} \rightarrow \boxed{\sin\alpha < 0}$

$= \frac{-\sin\alpha}{\cos\alpha} = \frac{-\sin\alpha}{|\cos\alpha|} \rightarrow \boxed{\cos\alpha < 0}$

ناحیه ۳

۴



$B = \frac{\pi}{2} - \alpha$

$\tan\alpha = \frac{b}{c} \qquad \tan\left(\frac{\pi}{2} - \alpha\right) = \frac{c}{b}$

$\tan\left(\frac{\pi}{2} - \alpha\right) = \frac{2}{\frac{3}{2}} = \pm\frac{4}{3} \rightarrow \pi > \alpha > \frac{\pi}{2} \rightarrow B \; \left(-\frac{4}{3}\right)$

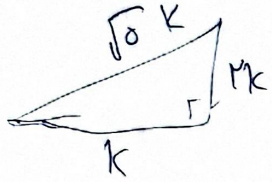
۵

$\frac{-3\cos 68 - 2\cos 68}{-\sin 22 - 2\sin 22} = \frac{5\cos 68}{2\cos 68} = \frac{5}{2} = 2.5$

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

$$\frac{2+2\sqrt{5}}{3}$$

9



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

7

$$\tan 2\alpha = \sqrt{2} = \frac{-2m}{m^2-1} \qquad \sqrt{2}m^2 + 2m - \sqrt{2} = 0$$

$$\frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{4+12}}{\sqrt{2}} = \frac{4}{\sqrt{2}} = \frac{4\sqrt{2}}{2}$$

1

$$0 < \frac{\pi}{4} - \alpha < \frac{\pi}{2} \Rightarrow 0 < \tan\left(\frac{\pi}{4} - \alpha\right) < +\infty$$

$$\frac{1-m}{2+m} > 0 \qquad m \in (-2, 1)$$

9

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

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