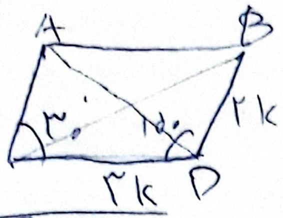
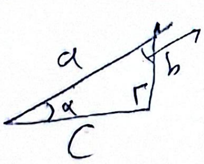
نام و نام خانوادگی .... پاسخنامه تشریحی تکلیف شماره ۲۰۶ کلاس ....

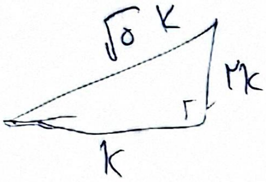
۱۹٫۷۵

۱	(۲)	 ~~$CB = \sqrt{...}$~~ ~~$AD = \sqrt{...}$~~ $S = 6k^2 \times \frac{1}{2} \to 3k^2 = 54$ $\to k = \sqrt{18} = 3\sqrt{2} \to \frac{P}{2} = 30\sqrt{2}$
۲	(۲)	$S_{ABC} = \frac{15}{4} \times 7 \times \sin A$ $S_{ADE} = \frac{1}{2} \times 7 \times 4 \times \sin A$ $7 \sin A = 3{,}5 \to \sin A = \frac{1}{2} \to \tan A = \frac{\sqrt{3}}{3}$
۳	(۲)	$1 + \tan^2\alpha = \frac{1}{\cos^2\alpha}$ $\frac{\lvert \sin\alpha \rvert}{\cos\alpha} = -\tan\alpha - \frac{\sin\alpha}{\cos\alpha} \to \sin\alpha < 0$, $\cos\alpha < 0$ ناحیه ۳
۴	(۲)	 $B = \frac{\pi}{2} - \alpha$, $\tan\alpha = \frac{b}{c}$, $\tan(\frac{\pi}{2} - \alpha) = \frac{c}{b}$ $\tan(\frac{\pi}{2} - \alpha) = \frac{2}{\frac{3}{2}} = \pm\frac{4}{3}$, $\pi > \alpha > \frac{\pi}{2} \to B\ (-\frac{4}{3})$
۵	(۲)	$\frac{-3\cos 68 - 2\cos 68}{-\sin 22 - \frac{\cos 22}{\sin}} = \frac{5\cos 68}{2\sin 22 / \cos 68} = \frac{5}{2} = 2{,}5$

$$\frac{\cancel{}+\sin\alpha}{\frac{1}{\cos^2\alpha}-1}=\frac{\frac{2}{3}\mp\frac{\sqrt{5}}{3}}{\frac{9}{4}-1}=\frac{4(2\mp\sqrt{5})}{3}=\frac{8\mp4\sqrt{5}}{3}$$

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

۶ (۱٫۷۵)



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

۷ (۲)

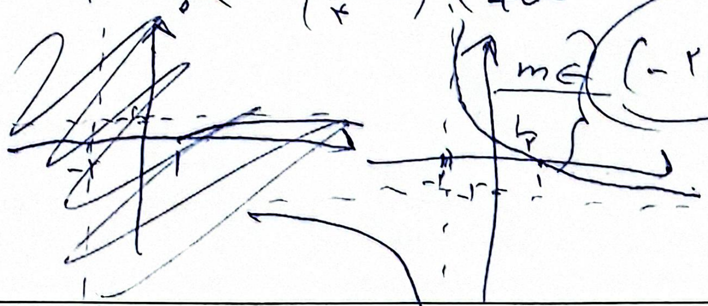
$$\tan 120=\sqrt{3}=\frac{-2m}{m^2-1}\qquad \sqrt{3}\,m^2+2m-\sqrt{3}=0$$

$$\frac{\sqrt{\Delta}}{|a|}=\frac{\sqrt{4+12}}{\sqrt{3}}=\frac{4}{\sqrt{3}}=\frac{4\sqrt{3}}{3}$$

۸ (۲)

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

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



۹ (۲)

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

۱۰ (۲)