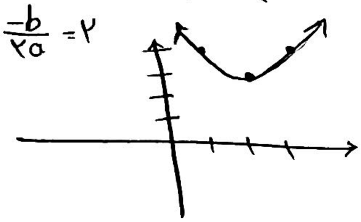
نام و نام خانوادگی .... پاسخنامه تشریحی تکلیف شماره ...... کلاس ....

۱

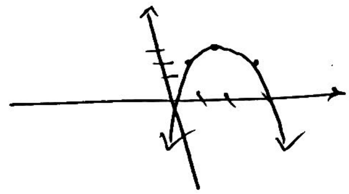
الف) $\frac{-b}{2a}=2$

1	2	3
4	3	4



ج) $\frac{-b}{2a}=2$

1	2	3
2	3	2



۲

الف) $m>5$ و $m<-3$

$\Delta>0$

$(m+1)^2-4(2)(\frac{1}{2}m+2)$

$m^2+2m+1-4m-16>0$

$m^2-2m-15>0$

$(m-5)(m+3)>0$

ب) $m=-3$ ، $m=5$

$\Delta=0$

$m^2-2m-15=0$

$(m-5)(m+3)=0$

پ) $-3<m<5$

$\Delta<0$

$m^2-2m-15<0$

$(m-5)(m+3)<0$

د) $m\geq5$ و $m\leq-3$

$\Delta\geq0$

$m^2-2m-15\geq0$

$(m-5)(m+3)\geq0$

۳

$S=\frac{-b}{a}=\frac{2(m+1)}{m-2}$

$P=\frac{c}{a}=\frac{10}{m-2}$

الف) $\frac{10}{m-2}>0$

$m>2$ ، $8\longrightarrow 9$ هیچ مقدار m

$S<0$ ، $m<2$

ج) $\frac{10}{m-2}<0$ ، $m<2$

$|r_1|>|r_2| \xrightarrow{r_1<0<r_2} -r_1>r_2$

$-(r_1+r_2)>0$ ، $r_1+r_2<0$

$\frac{2(m+1)}{m-2}<0$ ، $m<2$ ، $m>-1$

$-1<m<2$

۴

الف) $\frac{10}{m-2}<0$ ، $m<2$

$a=m-2<0$

$y<0$ سمت رو به پایین

ج) $\frac{-b}{2a}=\frac{-2(m+1)}{2(m-2)}=\frac{m+1}{m-2}=-2$

$m+1=-2m+4$

$3m=3$

$m=1$

۵

$4x^2-12(\sin\alpha)x+9=0$

$a=4$ ، $b=12\sin\alpha$ ، $C=9$

$\frac{-b}{2a}=\frac{12\sin\alpha}{8}=\frac{3}{2}\sin\alpha$

$x>0$ ، $\frac{3}{2}\sin\alpha>0$ ، $\sin\alpha>0$

$\Delta\geq0$ ، $(-12\sin\alpha)^2-4(4)(9)=144\sin^2\alpha-144\longrightarrow144(\sin^2\alpha-1)$

$\sin^2\alpha-1\geq0$ ، $\sin^2\alpha=1$ ، $\sin\alpha=\pm1$ (منفی غیرقابل قبول با توجه به قبل)

$x=\frac{3}{2}$

$y = -\frac{(3x^2-2x-1)(2x^2-3x-5)}{x^2-1}$

$D = x \neq \pm 1$

$y = -\frac{6x^3-9x^2-10x+15}{x^2-1} = (6x^2-11x-5)$

$y = -6x^2+11x+5$ $\quad \frac{-b}{2a} = \frac{11}{12}$ $\quad -6(\frac{11}{12})^2+11(\frac{11}{12})+5 = \frac{289}{24} \simeq 12,0$

$x = \frac{11}{12}$

$3s = 5p+7$ $\quad \frac{3m+6}{m} = \frac{-10+7m}{m}$

$s = \frac{m+2}{m}$ $\quad 3m+6 = -10+7m$

$p = \frac{-2}{m}$ $\quad m = 4$

$\alpha^2+\beta^2 = s^2-2p$

$s = \frac{3}{2}$, $p = \frac{-1}{2}$ $\quad (\frac{3}{2})^2-2(\frac{-1}{2}) = \frac{17}{4}$

$p=2 \rightarrow \alpha = \frac{2}{\beta}$ $\beta = \frac{2}{\alpha}$

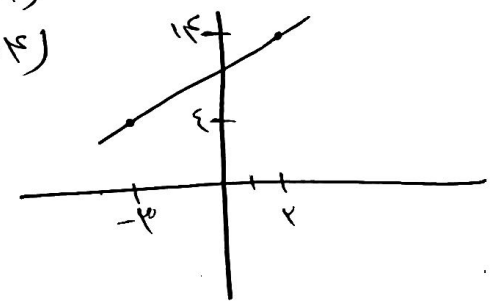
$s = 5$

$\frac{4\alpha+\beta^3}{5\beta^2} = \frac{4\alpha}{5\beta^2}+\frac{\beta^3}{5\beta^2} = \frac{4\alpha}{5(\beta^2)}+\frac{\beta^3}{5} \Rightarrow \frac{4\alpha}{\frac{5\times 2}{\alpha^2}}+\frac{\beta^3}{5} = \frac{\alpha^3+\beta^3}{5}$

$\frac{s^3-3sp}{5} = \frac{117-30}{5} = \frac{87}{5} = 19$

$(2,14)$

$(-3,4)$



$\frac{-3+2}{2} = \frac{-1}{2}$

$x = \frac{-1}{2}$