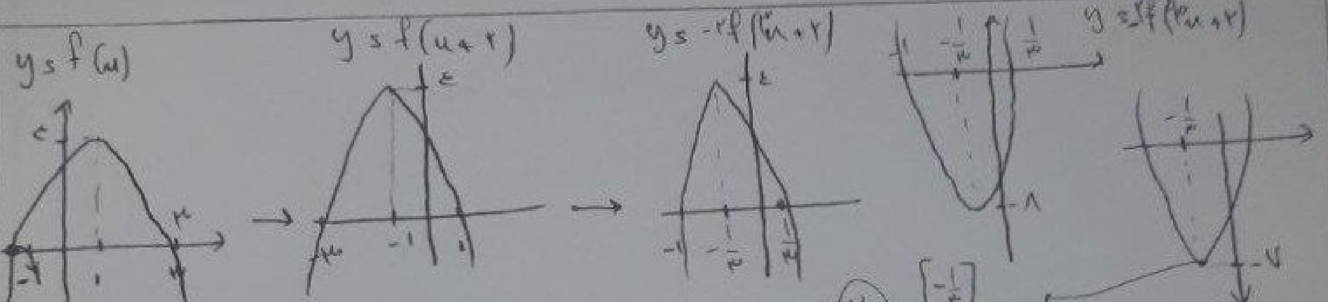
نام و نام خانوادگی ...ستایش ... محمدزاده...... پاسخنامه تشریحی تکلیف شماره ۷...... کلاس ....دوازدهم تجربی A....

$y=-\frac{1}{3}x^2+\frac{2}{5}x+1 \longrightarrow -\frac{1}{3}(x-x_{\text{راس}})^2+y_{\text{راس}}$ $y=-\frac{1}{3}(x-4)^2+3$ $y=0 \longrightarrow -\frac{1}{3}(x-4)^2+3=0 \longrightarrow (x-4)^2=9 \longrightarrow x-4=3 \longrightarrow \boxed{x=7}$ $x-4=-3 \longrightarrow \boxed{x=1}$	۱
 $\alpha\beta=-\frac{1}{3}\times-7=\frac{7}{3}$ $\begin{bmatrix}-\frac{1}{3}\\-7\end{bmatrix}$	۲
$y=3-2\sqrt{x} \longrightarrow y=3-\sqrt{2(x+1)} \xrightarrow{\text{قرینه نسبت به محور طول‌ها}} y=\sqrt{2(x+1)}-3+5$ $y=\sqrt{2x+2}+2 \longrightarrow \sqrt{2x+2}=\frac{7}{2} \longrightarrow 2x=\frac{1}{4} \longrightarrow \boxed{x=\frac{1}{8}}$	۳
$y=f(x-1)+g(x+1) \longrightarrow D=(-2,5)$ $D_f=(a,4] \longrightarrow f(x-1) \longrightarrow a<x-1\leq 4 \longrightarrow a+1<x\leq 5 \longrightarrow D_{f(x-1)} \Rightarrow (a+1,5]$ $D_g=[-1,b) \longrightarrow g(x+1) \longrightarrow -1\leq x+1<b \longrightarrow -2\leq x<b-1 \longrightarrow D_{g(x+1)} \rightarrow [-2,b-1)$ $\begin{pmatrix}a+1, & b-1\\-2, & 5\end{pmatrix} \longrightarrow a=-3,\ b=6 \quad a-b=-9$	۴
دامنه تابع $|2f(x)+3|\geq 0 \xrightarrow[\text{درست}]{\text{همواره}} D_{f(x)}=A$ $y_1=f(\frac{x}{2}+1)$ $D_1[-3,5]$ $-3\leq x\leq 5$ $-\frac{3}{2}\leq\frac{x}{2}\leq\frac{5}{2} \xrightarrow{+1} -\frac{1}{2}\leq\frac{x}{2}+1\leq\frac{7}{2}$ $D_f=[-\frac{1}{2},\frac{7}{2}] \quad D_2=[-\frac{1}{2},\frac{7}{2}]$	۵

$y=\frac{x}{a}[ax] \longrightarrow 0 \leq ax < 1 \longrightarrow 0 \leq x \leq \frac{1}{a}$ ✗ $\quad y=\frac{x}{a}[ax] \longrightarrow a<0$

$[ax]=0 \quad \longrightarrow \frac{1}{a} < x \leq 0 \longrightarrow y=0$

$A(\frac{1}{a}, \frac{1}{4}) \longrightarrow \frac{1}{a^2}=\frac{1}{4} \longrightarrow \left.\begin{array}{l} a=\pm 2 \\ a<0 \end{array}\right\} \longrightarrow a=-2$

$1 \leq ax < 2 \longrightarrow \frac{2}{a} < x \leq \frac{1}{a} \quad y=\frac{x}{a}$

$[ax]=1$

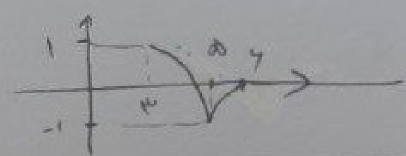
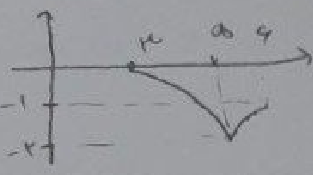
$y=\frac{x}{-2}[-2x] \longrightarrow b=\frac{1}{2}\times 2=1 \quad b-a=1-(-2)=3$ 6

$f(x)=\log_2^x \xrightarrow{} y=\log_2^{x+2} \xrightarrow{} y=-\log_3^{x+2} \longrightarrow y=-\log_2^{x+2}+3 \longrightarrow$

$y=-\log_2^{-x+2}+3 \longrightarrow g(x)=-\log_2^{-x+2}+3 \begin{cases} \longrightarrow g(-14) \longrightarrow -4+3=-1 \\ \longrightarrow g(-62) \longrightarrow -6+3=-3 \end{cases}$ 7

$g(-14)+g(-62)=-1-3=-4$

$y=2-f(3-x) \quad y=f(3-x) \quad y=f(3-x) \quad y=f(3+x) \quad y=f(x)$

$y=f(x-1)$  $y=f(x-1)-1$  8

$f(x)=\left|\frac{x+1}{2x+1}\right| \longrightarrow f(x)=\left|\frac{(x-2)+1}{2(x-2)+1}\right| \longrightarrow g(x)=\left|\frac{x-1}{2x-3}\right|+1$

$\frac{x-1}{2x-3} < -x-1 \qquad \begin{array}{cccc} & -\sqrt{2} & \sqrt{2} & \frac{3}{2} \\ - & + & - & + \end{array}$

$x+g(x)<0 \longrightarrow x+1+\left|\frac{x-1}{2x-3}\right|<0 \longrightarrow \left|\frac{x-1}{2x-3}\right| < -(x+1)$ 9

$\frac{x-1}{2x-3} > x+1 \qquad \begin{array}{cccc} & \frac{1-\sqrt{5}}{2} & \frac{3}{2} & \frac{1+\sqrt{5}}{2} \\ + & - & + & - \end{array}$

اشتراک $\longrightarrow (-\infty, -\sqrt{2})$

$y=x^3 \qquad g(x)=\sqrt{-f^2(x)+28f(x)}$

$f(x)=(x-2)^3+27 \qquad g(x)=\sqrt{-f(x)(f(x)-28)} \longrightarrow f(x)=28 \longrightarrow (x-2)^3+27=28$ 10

۲ واحد راست ۲۷ واحد بالا $\qquad \longrightarrow \boxed{x=3}$

$\longrightarrow f(x)=0 \longrightarrow (x-2)^3+27=0 \longrightarrow \boxed{x=-1}$

$\begin{array}{cccc} & -1 & 3 & \\ - & + & - & \end{array} \longrightarrow D_g=[-1,3] \longrightarrow -1,0,1,2,3$ گزینه 1