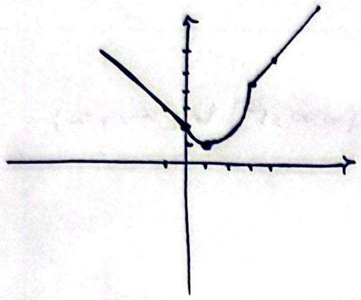
$y=\frac{x^2+5x+m}{x+1} \to yx+y=x^2+5x+m \to x^2+(5-y)x+m-y=0$

$\xrightarrow{\Delta\geq 0} y^2-10y+25-4m+4y\geq 0 \to y^2-6y+25-4m\geq 0 \to \Delta\leq 0 \to 36-100+16m\leq 0$

$\to 16m\leq 64 \to m\leq 4 \to m=\{1,2,3,4\} \to$ ۴ عدد طبیعی ۶ (۱٫۷۵)

$m=4 \to \frac{x^2+5x+4}{x+1}=x+4,\ x\neq -1$ برد تابع IR نقض شود

$x<0 \to -x+2$ $\quad \left|\begin{matrix}3\\5\end{matrix}\right. \quad \left|\begin{matrix}4\\6\end{matrix}\right.$

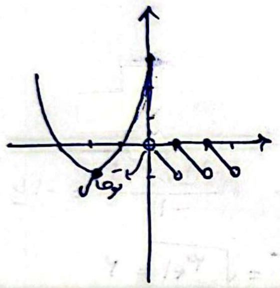


$x^2-2x+2 \to a>0 \to S_{min}\left|\begin{matrix}1\\1-2+2=1\end{matrix}\right. \quad \left|\begin{matrix}3\\9-6+2=5\end{matrix}\right. \quad \left|\begin{matrix}0\\2\end{matrix}\right.$ ۷

$\left|\begin{matrix}0\\2\end{matrix}\right. \quad \left|\begin{matrix}-1\\3\end{matrix}\right.$ (د)

$R_f=[1,+\infty)$

$x^2+4x+3=(x+3)(x+1) \to S_{min}\left|\begin{matrix}-2\\4-8+3=-1\end{matrix}\right. \quad \left|\begin{matrix}0\\3\end{matrix}\right.$

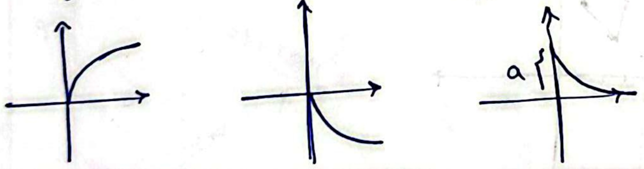


$-1<[2x]-2x\leq 0$ (د) ۸

$R_f=(-1,+\infty)$

$2x+3\geq 0 \to x\geq -\frac{3}{2} \to b=-\frac{3}{2}$

$\sqrt{☁}$ اگر ضریبش منفی باشد $+\sqrt{☁}$ $\quad a-\sqrt{☁},\ a>0 \to a+1=5 \to a=4$ (د) ۹



$\to ab=4(-\frac{3}{2})=-6$

$D_f=\{1\}$: زیرا $x+1\geq 0 \cap -x+1\geq 0 \to D_f=\{1\} \to f(x)=\{(1, 2\sqrt{2})\}$

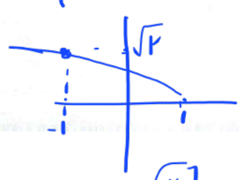
$D_g=\{1\}: D_f=D_g$ پس داریم $\to \underbrace{f(x)}_{2\sqrt{2}}+g(x)=3\sqrt{2+2\sqrt{1-x^2}}=3\sqrt{2}$ (۰٫۵) ۱۰

$\to 2\sqrt{2}+g(x)=3\sqrt{2} \to g_x=\sqrt{2} \to g(x)=\{(1,\sqrt{2})\}$

$\to y=\frac{f(x)}{4}-\frac{g(x)}{3}=\{(1, \frac{2\sqrt{2}}{4}-\frac{\sqrt{2}}{3})\}=\{(1,0)\}$

$f(x)+g(x)=3\sqrt{2+2\sqrt{1-x^2}} \xrightarrow{\text{به توان ۲}} (\sqrt{1-x}+\sqrt{1+x})^2 \xrightarrow{\text{جذر بگیریم}} 3(\sqrt{1-x}+\sqrt{1+x})$

$\to g(x)=\sqrt{1+x}-\sqrt{1-x} \qquad \frac{f(x)}{4}-\frac{g(x)}{3}=\sqrt{1-x}$



$R\ [0,\sqrt{2}]$

۱۷,۷۵

نام و نام خانوادگی ...ستایش عنبرلو... پاسخنامه تشریحی تکلیف شماره ..۸.. کلاس ...یازدهم تجربی...

۱ (۱,۵)

$2g = \{(-1,2),(0,8),(2,0),(1,4)\}$

$3f = \{(-1,0)(0,3)(1,0)\}$

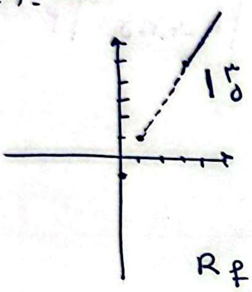
$f = \{(-1,0),(0,1),(4,0)\}$

$2g - 3f = \{(-1,2),(0,5),(1,4)\}$

$8-3=5$ $\quad 5+2+4=11$

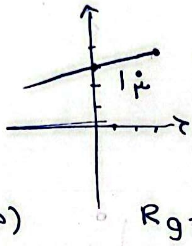
۲ (۲)

$f(x) = 2x-1$



$1 \; \begin{matrix}3\\5\end{matrix}$

$g(x) = \frac{1}{3}x+3$



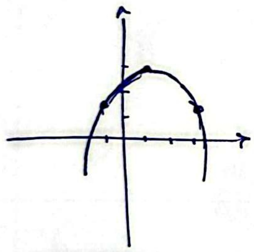
$1 \; \begin{matrix}3\\4\end{matrix}$

$R_g \cup R_f = (-\infty,4] \cup [5,+\infty)$

$R_f = [5,+\infty)$ $\quad R_g = (-\infty,4]$

۳ (۲)

$y = \frac{-x^2}{2} + x + 3$



$a<0 \to$ ماکس $\to$ max $\left| \begin{matrix} \frac{1}{2}(2)=1 \\ -\frac{1}{2}+1+3 = 3/5 \end{matrix}\right.$

$-\frac{x^2}{2}+x+3 \geq \frac{3}{2} \to \frac{-x^2}{2}+x+\frac{3}{2}=0 \to \frac{-1\pm\sqrt{1+3}}{-1} = -1, 3$

$\left[\begin{matrix}3\\1/5\end{matrix}\right. \quad \left[\begin{matrix}-1\\1/5\end{matrix}\right.$

$-\frac{9}{2}+3+3= \quad -\frac{1}{2}-1+3$

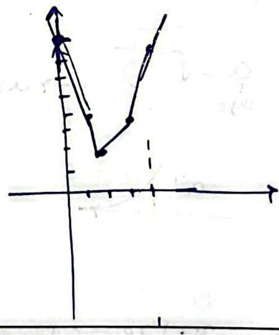
$a=-1,\ b=3 \to \sqrt{b-a} = \sqrt{3+1} = 2$

۴ (۲)

$y = |x-1| + |x-3| + |2x-4|$

$-4x+8$	1 $\;-2x+6$	2 $\;2x-2$	3 $\;4x-8$
	4	2	4

$1 \; \begin{matrix}0\\8\end{matrix}$ $\quad 1+3+4$ $\qquad 1 \; \begin{matrix}4\\8\end{matrix}$ $\quad 3+1+4$



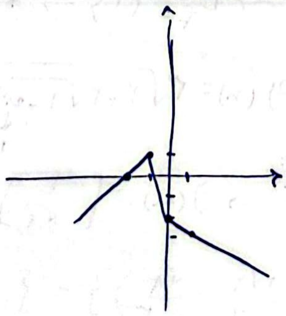
$y_{min} = 2$

۵ (۲)

$y = |x| - 2|x+1|$

$x+2$	-1 $\;-3x-2$	0 $\;-x-2$
	1	-2

$\begin{matrix}-2\\0\end{matrix}$ $\qquad \begin{matrix}1\\-3\end{matrix}$



$R_f = (-\infty,1]$