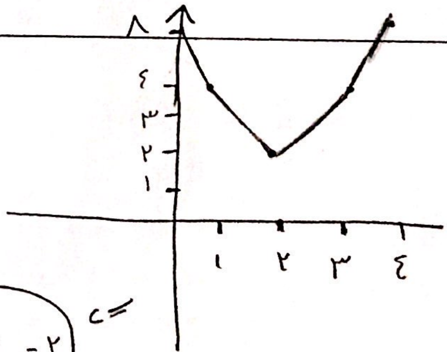
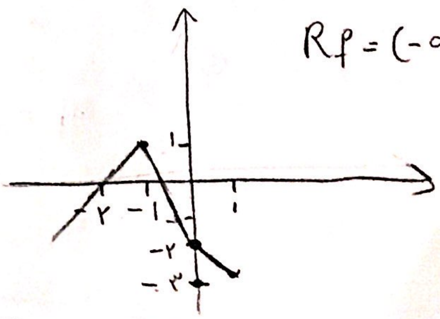
نام و نام خانوادگی ....سارا ...... پاسخنامه تشریحی تکلیف شماره ..8.. کلاس ..یازدهم تجربی A....

$f(x)=\sqrt{1-x^2}$ $g=\{(-1,1),(0,4),(2,0),(1,2)\}$ $2g-3f$ $\quad 2g-3f=\{4,8\}$ $R_{2g}=\{2,8,0,4\}$ $\quad 4+8=12$ $R_{3f} \Rightarrow \begin{cases} R_f \Rightarrow y=\sqrt{1-x^2} \Rightarrow y^2=1-x^2 \Rightarrow x^2=1-y^2 \Rightarrow x=\sqrt{1-y^2} \\ \Rightarrow 1-y^2\geq 0 \Rightarrow 1\geq y^2 \Rightarrow 1\geq y \Rightarrow R_f=(-\infty,1] \Rightarrow R_{3f}=(-\infty,3] \end{cases}$	۱
$f(x)=2x-1$ $\quad D_f=[3,+\infty) \Rightarrow$ $\begin{array}{c\|c\|c} x & 3 & 4 \\ \hline y & 5 & 7 \end{array}$ $\Rightarrow R_f=[5,+\infty)$ (I) $g(x)=\frac{1}{3}x+10$ $\quad D_g=(-\infty,3] \Rightarrow$ $\begin{array}{c\|c\|c} x & 3 & 2 \\ \hline y & 4 & \frac{11}{3} \end{array}$ $\Rightarrow R_g=(-\infty,4]$ (II) $\Rightarrow (I)\cup(II)=\mathbb{R}-(4,5)$	۲
$y=\frac{-x^2}{2}+x+3$ $\quad (a,b)$ $\quad \sqrt{b-a} \Rightarrow$ طول بازه $\sqrt{3-(-1)}=\sqrt{4}=2$ $\frac{-x^2}{2}+x+3>\frac{3}{2} \Rightarrow -\frac{x^2}{2}+x+\frac{3}{2}>0 \Rightarrow a+c=b \Rightarrow x=-1,\ x=3$ $\begin{array}{ccccc} & -1 & & 3 & \\ \hline - & 0 & + & 0 & - \end{array}$ $\Rightarrow (-1,3)$	۳
$y=\|x-1\|+\|x-3\|+\|2x-4\|$ $x=1 \Rightarrow y=4$, $x=2 \Rightarrow y=2$, $x=3 \Rightarrow y=4$ $-4x+8 \mid -2x+6 \mid 2x-2 \mid 4x-8$ min $=2$ 	۴
$y=\|x\|-2\|x+1\|$ $x=-1 \Rightarrow 1$, $x=0 \Rightarrow -2$ $x+2 \mid -3x-2 \mid -x-2$  $R_f=(-\infty,1]$	۵

$$y=\frac{x^2+5x+m}{x+1} \Rightarrow \text{if } f(x)=ax^2+bx+c \Rightarrow R_f \neq \mathbb{R}$$

این باید به صورت معادله خط باشد

چون p بر x+1 بخش‌پذیر است

برابر

مجموع ضرایب توان های زوج با فرد

$m+1=5 \Rightarrow m=4 \Rightarrow$ باید عدد طبیعی

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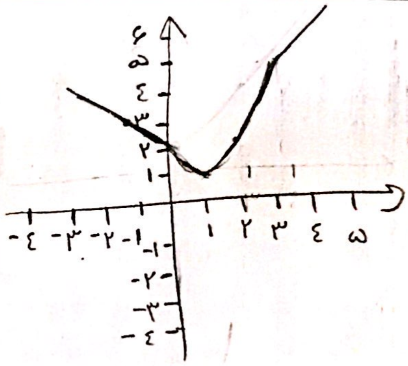
$$f(x)=\begin{cases} x+2 & ; x\geq 3 \\ x^2-2x+2 & ; 0\leq x<3 \\ |x|+2 & ; x<0 \end{cases} \Rightarrow$$



$R_f=[1,+\infty)$

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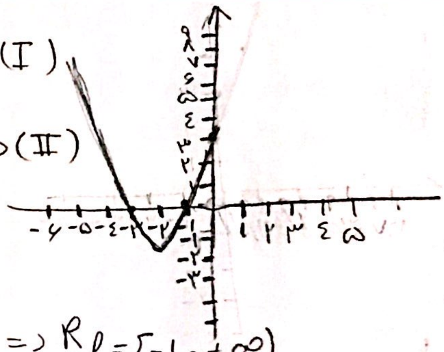
$$f(x)=\begin{cases} x^2+4x+3 & ; x\leq 0 \Rightarrow (\mathrm{I}) \\ [2x]-2x & ; x>0 \Rightarrow (\mathrm{II}) \end{cases}$$



$-1<[a]-a\leq 0$

$R_{(\mathrm{I})}=[-1,+\infty) \qquad R_{(\mathrm{II})}=(-1,0] \Rightarrow R_f=[-1,+\infty)$

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$$y=a+1-\sqrt{2x+3} \Rightarrow 2x+3\geq 0 \Rightarrow 2x\geq -3$$

$D_f=[b,+\infty)$

$R_f=(-\infty,5]$

$b=-\frac{3}{2} \Leftarrow x\geq -\frac{3}{2}$

$\text{if} \rightarrow x=-\frac{3}{2} \Rightarrow a+1-\sqrt{0}=5 \Rightarrow a=4 \Rightarrow ab=4\times -\frac{3}{2}=-6$

$\Rightarrow y=5$

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$f(x)$

جواب سؤال صفحه بعد

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$f(x) = 2\sqrt{x+1} + 4\sqrt{1-x}$

$f(x) + g(x) = 3\sqrt{2 + 2\sqrt{1-x^2}}$

$D_f = D_g \Rightarrow y = \frac{f(x)}{6} - \frac{g(x)}{3}$

$D_f \Rightarrow x+1 \geq 0 \Rightarrow x \geq -1 \,,\, 1-x \geq 0 \Rightarrow x \leq 1$

$\Rightarrow D_f = [-1, 1]$

$f(1) = 2\sqrt{2} \Rightarrow f(1) + g(1) = 3\sqrt{2} \Rightarrow g(1) = \sqrt{2}$

$f(-1) = 4\sqrt{2} \Rightarrow f(-1) + g(-1) = 3\sqrt{2} \Rightarrow g(-1) = -\sqrt{2}$

$f(0) = 2 + 4 = 6 \Rightarrow f(x) + g(x) = 6 \Rightarrow g(0) = 0$

$\Downarrow\ g(x) = x\sqrt{2}$

$R_f \Rightarrow x = -1 \Rightarrow 2\sqrt{2} \Rightarrow R_f = [2\sqrt{2}, 6]$

$x = 0 \Rightarrow 6$

$\Rightarrow R_{\frac{f(x)}{6}} = \left[\frac{\sqrt{2}}{3}, 1\right]$

$y = \frac{x\sqrt{2}}{3} \Rightarrow 3y = x\sqrt{2} \Rightarrow \frac{3y}{\sqrt{2}} = x \Rightarrow R_g = \mathbb{R}$

$R_{\frac{f(x)}{6} - \frac{g(x)}{3}} = \left[\frac{\sqrt{2}}{3}, 1\right]$