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

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

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

$3f=(-1,0),(0,3),(1,0)$

$2g-3f=[(-1,2),(0,5),(1,4)] \longrightarrow 2+5+4=\boxed{11}$

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$f(x)=2x-1$ $D_f=[3,+\infty) \longrightarrow 2(3)-1=5$ $R_f=[5,+\infty)$

$g(x)=\frac{1}{3}x+2$ $D_g=(-\infty,3] \longrightarrow \frac{1}{3}(3)+2=4$ $R_g=(-\infty,4]$

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

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$\frac{-x^2}{2}+x+3=\frac{3}{2} \xrightarrow{\times 2} -x^2+2x+6=3 \quad -x^2+2x+3=0$

$x^2-2x-3=0 \quad (x-3)(x+1) \longrightarrow x=3,\ x=-1$

$max=\sqrt{b-a} \longrightarrow \sqrt{3-(-1)}$

$=\sqrt{4}=\boxed{2}$

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$-x+1-x+2-2x+4$	$x-1-x+2-2x$	$x-1-x+3+2x$	$x-1+x-3+2x-4$
$-4x+8$	$+4$	-4	
	$-2x+4$	$2x-2$	$4x-8$
	۲	۳	

$x=2 \quad |2-1|+|2-3|+|4-4|=\boxed{2}$

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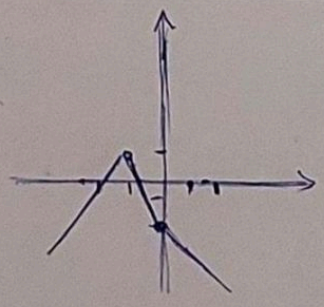
$y=|x|-2|x+1|$

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



$R_f=(-\infty,1]$

$\frac{x^2+ax+m}{x+1}=y \quad x^2+ax+m=yx+y \quad x^2+(a-y)x+(m-y) \longrightarrow$

$\Delta \geq 0 \quad (a-y)^2-4\times1\times m-y = y^2-4m-4y+2a \xrightarrow{-\frac{b}{2a}=2} 9-4m-18+2a$

$\Rightarrow 14-4m \geq 0 \quad 4m \leq 14 \quad m \leq 4$

$x+1 \neq 0 \quad x \neq -1 \xrightarrow{x^2+(a-y)x+(m-y)} m-4=0 \quad m=4 \longrightarrow y=-1 \times$

$m \rightarrow m<4 \quad \boxed{1,2,3}$

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$f(x)=\begin{cases} x+2 & x \geq 2 \xrightarrow{x=2} [3,+\infty) \ ① \\ x^2-2x+2 & 0 \leq x<2 \xrightarrow{x=0,x=2} [1,3) \ ② \\ |x|+2 & x<0 \xrightarrow{x=0} (2,+\infty) \ ③ \end{cases}$

$① \cap ② \cap ③ = [1,+\infty)$

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$f(x)=\begin{cases} x^2+5x+2 & x \leq 0 \longrightarrow x=\frac{-b}{2a}=-2 \quad y=(-2)^2+5(-2)+2=-1 \\ [2x]-2x & x>0 \quad [\dots,-3,-2,-1] \subseteq \mathbb{Z}^- \ ② \end{cases} \quad [-1,+\infty) \ ①$

$① \cap ② = \mathbb{R}$

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

$\hookrightarrow x=-\frac{3}{2} \quad y=a+1-\sqrt{0} \quad \underline{y=a+1} \quad a+1=3 \quad a=2 \quad \rightarrow (-\infty,3]$

$ab=2\times\frac{3}{2}=-3$

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$2\sqrt{x+1}+2\sqrt{1-x} \longrightarrow x+1 \geq 0 \quad x \geq -1 \quad 1-x \geq 0 \quad x \leq 1 \quad [-1,1]$

$D_f = D_g$

$y=\frac{f(x)}{3}-\frac{g(x)}{2} \rightarrow \frac{f(x)}{3}-\frac{f+g}{2}+\frac{f(x)}{2}=\frac{f(x)}{2}-\frac{f(x)+f(g)}{2}$

$\rightarrow \frac{2\sqrt{x+1}+2\sqrt{1-x}}{2}-\frac{2\sqrt{2+2\sqrt{1-x^2}}}{2}=\sqrt{x-1}+2\sqrt{1-x}-\sqrt{2+2\sqrt{1-x^2}}$

$\xrightarrow{x=1} \sqrt{2}$

$\xrightarrow{x=-1} 0 \longrightarrow R_{\frac{f(x)}{3}-\frac{g(x)}{2}}=[\sqrt{2},0]$

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