عارفه سعادت نیا

Subject : (                )
Date :

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$\cancel{a^2}+2a=\cancel{a^2}-4 \rightarrow 2a=-4 \rightarrow \boxed{a=-2}$

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$f(2)=\dfrac{4+a}{4-b}=3 \rightarrow 4+a=12-3b \qquad g(2)=4+b=3 \rightarrow b=-1$

$4+a=12-3(-1)=a=11 \qquad f(1)=\dfrac{x^2+11}{2x+1}=\dfrac{1+11}{2+1}=\dfrac{12}{3}=\boxed{4}$

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$x-1 \quad 2(-1)^2-a+b=0$

$2(4)^2+4a+b=0 \rightarrow \begin{cases} -2+a-\cancel{b}=0 \\ 32+4a+\cancel{b}=0 \end{cases}$

$30+5a=0$

$a=-6 \rightarrow b=-8$

$f(1)=\dfrac{4+1}{2-6-8}=\boxed{\dfrac{5}{-12}}$

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$-(2x+2)^2=-(4x^2+4+8x)=-4x^2-8x-4 \quad a+b=$

$-8-4=\boxed{-12}$

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$\Delta<0 \rightarrow m^2-4<0 \quad m^2<4 \rightarrow -2<m<2$

$\text{if } -2=m \rightarrow x^2-2x+1=0 \rightarrow \underset{1}{(x-1)^2=0} \rightarrow -2\le m<2, \ [-2,2)$

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$4-\frac{1}{x^2}\geq 0 \to 4\geq \frac{1}{x^2} \to \frac{1}{4}\geq x^2 \to x\geq \frac{1}{2} \ , \ x\leq -\frac{1}{2}$

$x^2\neq 0 \to x\neq 0 \to x \cdot D_f=(-\infty,-\frac{1}{2}]\cup[\frac{1}{2},+\infty)$

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$mx^2+2mx+1=0 \to \Delta\leq 0 \to 4m^2-4(m)(1)\leq 0$

$4m^2-4m\leq 0 \to \underset{0}{\underline{m}}(\underset{1}{\underline{4m-4}})\leq 0$

| | 0 | | 1 | |
|---|---|---|---|---|
| + | | − | | + |

$m\in[0,1]$

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$\cancel{2}(\frac{1}{\cancel{2}})+k=\cancel{2(\frac{1}{2})+1} \to k=0$

$2x-1\neq 0 \to 2x\neq 1 \to x\neq\frac{1}{2} \to a=\frac{1}{2}$

$a+k=0+\frac{1}{2}=\boxed{\frac{1}{2}}$

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$\cancel{3}(\frac{-2}{\cancel{3}})a+2=\cancel{3}(-\frac{2}{3})+b \to -2a+2=-2+b$

if $x=1 \to 3(1)+b=\frac{\overset{5}{9(1)-4}}{\underset{5}{3(1)+2}} \to 3+b=1 \to b=-2$

$-2a+2=-2-2 \to -2a=-6$

$a=3$

$a-b=3-(-2)=\boxed{5}$

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$2a^2+2a=2+2 \to 2a^2+2a-4=0 \to a^2+a-2=0$

$(a-1)(a+2)=0$

$\boxed{a=1, \quad a=-2}$