

نام و نام خانوادگی: پریم پریم پاسخنامه تشریحی تکلیف شماره کلاس: یازدهم A

$$f'(a) = f'(-1) + a \Rightarrow f'(a+1)(1) = 3a - 4 \Rightarrow 14a + 14 = 3a - 4 \Rightarrow$$

$$10a = -18 \Rightarrow a = -1.8$$

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$$(\sqrt{3}-1)^2 = 3 + 1 - 2\sqrt{3} = 4 - 2\sqrt{3}$$

$$f\left(\frac{4-2\sqrt{3}}{2}\right) + f\left(\frac{4+2\sqrt{3}}{2}\right) = \frac{\sqrt{3}-1}{\sqrt{2}} + \frac{\sqrt{2}}{\sqrt{3}-1} + 1 + \frac{\sqrt{3}+1}{\sqrt{2}} + \frac{\sqrt{2}}{\sqrt{3}+1} + 1 =$$

$$\frac{\sqrt{3}-1}{\sqrt{2}} + \frac{\sqrt{2} \times (\sqrt{3}+1)}{(\sqrt{3}-1)(\sqrt{3}+1)} + 1 + \frac{\sqrt{3}+1}{\sqrt{2}} + \frac{\sqrt{2} \times (\sqrt{3}-1)}{(\sqrt{3}+1)(\sqrt{3}-1)} + 1 = \frac{\sqrt{3}-1}{\sqrt{2}} + \frac{\sqrt{3}+1}{\sqrt{2}} + \frac{\sqrt{3}+1}{\sqrt{2}} +$$

$$\frac{\sqrt{3}-1}{\sqrt{2}} + 4 = \frac{4\sqrt{3}}{\sqrt{2}} + 4 = \frac{4\sqrt{6}}{\sqrt{2}} + 4 = 2\sqrt{6} + 4$$

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$$f'(-x) - f'(x) = f'_x + x \times 1 = f'(-x) - f'(x) = 1 \times x^2 + 1 \times x$$

$$f'(x) - f'(-x) = f'_x - x \times 1 = f'(x) - f'(-x) = 1 \times x^2 - 1 \times x \quad (+)$$

$$- \Delta f(-x) = f'_x - x \Rightarrow f(-x) = -f'_x + \frac{x}{\Delta}$$

$$\Rightarrow f(x) = -f'_x - \frac{x}{\Delta}$$

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$$x=0 \Rightarrow f(0) = 3m - 1 \xrightarrow{x^2} f'(0) = 9m - 3$$

$$x=-1 \Rightarrow f'(0) = 1 + 3m + 3m - 1 \Rightarrow f'(0) = 6m + 1 \Delta$$

$$\left. \begin{array}{l} 9m - 3 = 6m + 1 \Delta \\ 3m = 4 \Delta \end{array} \right\} \Rightarrow m = 4/3$$

$$f(0) = 3(4/3) - 1 = 1 \Delta \Rightarrow f(0) = 1/2 \Delta$$

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$$f(x) + f\left(\frac{1}{x}\right) = ax + b + \frac{a}{x} + b = \frac{ax^2 + 1bx + a}{x} = \frac{3x^2 - 11x + 3}{x}$$

$$\Rightarrow \begin{cases} a = 3 \\ b = -11 \end{cases} \quad f(-1) = (3)(-1) + (-11) = -14$$

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$$\left. \begin{aligned} D_f &= D_g = (-\infty, 1] \\ (x-1) = a &\rightarrow \begin{cases} f(x) = a\sqrt[3]{a} \\ g(x) = \sqrt[3]{a^3} \end{cases} \end{aligned} \right\} \left. \begin{aligned} D_f &= D_g \\ R_f &= R_g \end{aligned} \right\} \Rightarrow \boxed{f(x) = g(x)}$$

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$$f(x) \rightarrow x \geq 0 = x^2 \geq 0 \leftarrow g(x)$$

$$D_f = D_g$$

$$\boxed{f(x) = g(x)}$$

$$x\sqrt{x} = \sqrt{x^3} \rightarrow R_f = R_g$$

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$$D_f = [0, +\infty)$$

$$x - |x| \geq 0 \Rightarrow x \geq |x| \Rightarrow x \geq 0 \rightarrow D_g = [0, +\infty)$$

$$f(x) \rightarrow \text{مربعه صفر}$$

$$\boxed{f(x) = g(x)}$$

$$g(x) \rightarrow x = |x| \text{ مربعه صفر} \rightarrow \text{مربعه صفر}$$

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$$\text{الف) } \left(\frac{f+g}{f-g} \right)(1) = \frac{f(1) + g(1)}{f(1) - g(1)} = \frac{2+1}{2-1} = \boxed{3}$$

$$\text{ب) } \left(\frac{f+g}{f-g} \right)(2) = \frac{f(2) + g(2)}{f(2) - g(2)} = \frac{3+3}{3-3} = \text{"تعريف نشده"}$$

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$$\text{ج) } f(0) \times g(-1) = 0 \times 1 = \boxed{0}$$

$$\text{الف) } g(x) = f(3x-1) \rightarrow g(x) = \left\{ \left(-\frac{1}{3}, 2\right), (0, 2), \left(\frac{1}{3}, 5\right), (1, 1), \left(\frac{4}{3}, -1\right) \right\}$$

$$\text{ب) } h(x) = f(|x|) \rightarrow h(x) = \left\{ (2, 1), (-2, 1), (0, 5), (3, -1), (-3, -1) \right\}$$

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