

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۴... کلاس: پایه هفتم زمستان ۱۳۹۸

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$$f(x) = \begin{cases} (a+1)(x+1) & x \geq 1 \\ 3a+2x & x < 1 \end{cases} \quad f(0) = f(-1) + a \quad a = ?$$

$$f(0) = (a+1)(0) = 0a+0 \quad f(-1) = 3a+2(-1) = 3a-2$$

$$f(0) = f(-1) + a \Rightarrow 0 = 3a-2+a \Rightarrow 4a = 2 \Rightarrow a = \frac{1}{2}$$

$$f(x) = \sqrt{x} + \frac{1}{\sqrt{x}} + x \quad f(\sqrt{x}) + f(1/\sqrt{x}) = ?$$

$$\sqrt{\sqrt{x}} + \frac{1}{\sqrt{\sqrt{x}}} + \sqrt{x} + \sqrt{\frac{1}{\sqrt{x}}} + \frac{1}{\sqrt{\frac{1}{\sqrt{x}}}} + \frac{1}{\sqrt{x}} = 2\sqrt{x} + \frac{1}{\sqrt{x}} + \frac{1}{\sqrt{x}} + \frac{1}{\sqrt{x}} = 2\sqrt{x} + \frac{3}{\sqrt{x}}$$

$$f(x) - 3f(-x) = 4x^2 - x \quad f(x) = ?$$

$$f(x) - 3f(-x) = 4x^2 - x$$

$$f(-x) - 3f(x) = 4x^2 + x$$

$$4f(-x) - 9f(x) = 12x^2 + 4x$$

$$f(x) = 2x^2 - \frac{1}{4}x$$

$$(x+2)(f(x) - 3x^2 f(x+2)) = 2x^2 - mx + cm - 1$$

$$f(0) = ?$$

$$f(0) = 2(0)^2 - m(0) + cm - 1 = cm - 1$$

$$f(0) = 2(0)^2 - m(0) + cm - 1 = cm - 1$$

$$f(0) = 2(0)^2 - m(0) + cm - 1 = cm - 1$$

$$f(-1) = -11$$

$$f(-1) = -9$$

$$\begin{aligned} x=0 &\rightarrow f(\cdot) = \frac{r_m - 1}{r} \\ x=-1 &\rightarrow f(\cdot) = \frac{10 + 2m}{4} \end{aligned} \quad \left\{ \begin{array}{l} u = \frac{1}{r} \\ f(\cdot) = \frac{r\sigma}{r} \end{array} \right. \quad (9)$$