

نام و نام خانوادگی علی جبهیان

پاسخنامه تشریحی تکلیف شماره ۲۸.. کلاس پسر

۱۷, ۱۷.۵

$$f(a) = a^2 + 2a = a^2 - f$$

$$\Downarrow$$

$$2a = -f \Rightarrow a = -\frac{f}{2} \quad \checkmark$$

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$$x=2 \rightarrow g(2) = f + b = 3 \Rightarrow b = -1 \quad \checkmark$$

$$f(2) = \frac{f+a}{f-b} = 3 \rightarrow \frac{f+a}{f-(-1)} = 3 \Rightarrow a = 11 \quad \checkmark$$

$$\Rightarrow f(1) = \frac{1+11}{2+1} = \frac{12}{3} = 4 \quad \checkmark$$

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$$f(-1) = \frac{-f+1}{2-a+b} \notin \mathbb{R} \Rightarrow -a+b = -2 \quad \ominus \rightarrow \Delta a = 4 \Rightarrow a = -4 \Rightarrow b = -1 \quad \checkmark$$

$$f(4) = \frac{4+1}{2+4a+b} \notin \mathbb{R} \Rightarrow 4a+b = -2$$

$$f(1) = \frac{f+1}{2-4-1} = \frac{f+1}{-7} = \frac{\Delta}{-12} \quad \checkmark$$

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$$f(-1) = \frac{-1-\sqrt{3}}{-f-a+b} \notin \mathbb{R} \quad \begin{cases} -a+b=f \\ a-b=-f \end{cases}$$

$$-fx^2+ax+b=0 \rightarrow x=-1 \Rightarrow \Delta = a^2+4b=0$$

$$\downarrow$$

$$x = \frac{-a \pm \sqrt{0}}{-1} = -1 \Rightarrow a = -1 \quad \checkmark$$

$$4f+4b=0 \Rightarrow b = -f \Rightarrow a+b = -1-f = -12 \quad \checkmark$$

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$$f(i) = \frac{f}{(i)(i+m)}$$

$$x^2+mx+1=0 \rightarrow x=1 \rightarrow 1+m+1=0 \Rightarrow m=-2$$

$$\rightarrow x \notin \mathbb{R} \rightarrow \Delta < 0 \rightarrow m^2-4 < 0 \Rightarrow m \in (-2, 2)$$

$$m = \{-2\} \cup (-2, 2) = [-2, 2) \quad \checkmark$$

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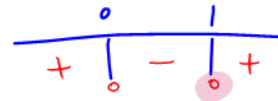
$$\cancel{\frac{1}{x^r} = 0} \Rightarrow \frac{1}{x^r} = r \Rightarrow x^r = \frac{1}{r} \Rightarrow x = \pm \frac{1}{r} \Rightarrow D = \left\{-\frac{1}{r}\right\}, \left\{+\frac{1}{r}\right\}$$

0
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$$\left\langle -\frac{1}{x^r} \right\rangle \geq 0 \rightarrow \frac{r x^r - 1}{x^r} \geq 0 \quad \begin{array}{c} - \\ r \\ + \end{array} \quad \begin{array}{c} * \\ 0 \\ - \\ r \\ + \end{array} \quad \begin{array}{c} 1 \\ r \\ + \end{array} \quad (-\infty, -\frac{1}{r}] \cup [\frac{1}{r}, +\infty)$$

$$m x^r + r m x + 1 = 0 \rightarrow x \notin \mathbb{R} \rightarrow \Delta < 0 \rightarrow r m^2 - r m < 0 \rightarrow r m(m-1) < 0$$

$$\left[\begin{array}{l} r \\ \text{ضريب} \end{array} = m > 0 \right.$$



$$\text{if } m=0 \rightarrow f(m)=1 \text{ ص 2}$$

$$m = [0, 1] \text{ 1}$$

$$\text{1} \cap \text{2} \rightarrow [0, 1]$$

1, 2
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$$g\left(\frac{1}{r}\right) = 1 + 1 = 2 \neq f\left(\frac{1}{r}\right) = 2 = f\left(\frac{1}{r}\right) + k \Rightarrow k = 0 \checkmark$$

$$\frac{a \neq \frac{1}{r}}{\frac{1}{r}} \rightarrow \frac{f\left(\frac{1}{r}\right) - 1}{f\left(\frac{1}{r}\right) - 1} \neq 2 \quad \times \Rightarrow a = \frac{1}{r} \checkmark \Rightarrow a + k = \frac{1}{r} \checkmark$$

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$$g\left(-\frac{r}{r}\right) = r\left(-\frac{r}{r}\right) + b \neq f\left(-\frac{r}{r}\right) = -ra + r \quad g(1) = r + b = f(1) = \frac{1-r}{r+r} = 1 \Rightarrow b = -r \checkmark$$

$$\rightarrow -r + b = -ra + r \quad \underline{b = -r} \quad -r = -ra + r \Rightarrow a = r \checkmark \Rightarrow a - b = r - (-r) = 2r \checkmark$$

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$$g(r) = r + r = 2r \neq f(r) = ra^r + ra = r(a+1)$$

$$\Rightarrow a(a+1) = 2 \Rightarrow a = \{-2\}, \{1\} \checkmark$$

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