

☆ سوال ۳۲۳ جابجاست بخشید

نام و نام خانوادگی سارا ج. پاسخنامه تشریحی تکلیف شماره کلاس	
الف) $\frac{n-1}{n} = \frac{n}{n-1} \gamma_1$ $\frac{(n-1)^2 - n^2}{n(n-1)} \gamma_1 \rightarrow \frac{n^2 + 1 - 2n - n^2}{n(n-1)} = \frac{1-2n}{n(n-1)}$ $n=0 \quad n=\frac{1}{2} \quad n=1$ $D_f = (-\infty, 0) \cup (\frac{1}{2}, 1)$	ب) $n+1 \neq 0 \quad n \neq -1$ $n \neq 0$ $n-1 \neq 0 \quad n \neq 1$ $n+2 \neq 0 \quad n \neq -2$ $\frac{3}{n-1} + \frac{1}{n-2} \neq 0 \Rightarrow \frac{3n-2}{n^2-n-2} \neq 0 \Rightarrow n \neq \frac{-2}{3}$ $D = \mathbb{R} - \{-\frac{2}{3}, -1, 0, 1, 2\}$
$n^2 - n - 2 \gamma_0 \quad (n-2)(n+1) \gamma_0$ $n < -1 \quad n > 2$ $n^2 - 1 \gamma_1 \quad n^2 \gamma_1 \quad n \gamma_1 \quad n < -1$ $\sqrt{n^2-1} \neq -1$ همیشه بزرگتر است	$D_f = (-\infty, -1) \cup (2, +\infty)$ ۳
الف) $\frac{1}{x^2} - 9 = 0$ $(\frac{1}{x^2} - 9)(x^2 - 9) \gamma_1$ $\frac{1}{x^2} - 9 = 0 \Rightarrow x^2 = \frac{1}{9} \Rightarrow x = \pm \frac{1}{3}$ $x^2 - 9 = 0 \Rightarrow x = \pm 3$ $D_f = (-\infty, -3] \cup [\frac{1}{3}, +\infty)$	ب) $n-1 \gamma_1 \Rightarrow n \gamma_1$ $\sqrt{y+1} = 3 - \sqrt{n-1}$ $3 - \sqrt{n-1} \gamma_1 \Rightarrow \sqrt{n-1} \leq 3$ $n-1 \leq 9 \Rightarrow n \leq 10$ $D = [1, 10]$
$3 - 2a - f = 0$ $-1 = 2a \quad a = -\frac{1}{2}$ $b = \frac{3}{2}$ $3 - 12b - b^2 = 0$ $\Delta = \frac{1}{4} + 12 = \frac{49}{4} \quad b = \frac{1}{2} \pm \frac{7}{2}$	$\frac{3}{2} - \frac{1}{2} = 1$ $D = [1, 12]$ ۴
$f(n) - n \gamma_1$ $f(n) \gamma_1 n$ $3n - 2 \gamma_1 n \rightarrow 2n \gamma_1 \rightarrow n \gamma_1$ $2n + 3 \gamma_1 n \rightarrow n \gamma_1 - 3$ $D_g = [-3, +\infty)$	۵

سوال ۱ صفت ب $D_f = \mathbb{R} - \{-\frac{2}{3}, -1, 0, 1, 2\}$

$$f(n) = \sqrt{n} - f$$

$$f\left(\sin \frac{\pi}{\sqrt{f}} + \cos \frac{\pi}{1}\right) = \frac{\sqrt{f}}{f} + 1 \rightarrow \frac{\sqrt{f} + f}{f}$$

$$f\left(\frac{\sqrt{f} + f}{f}\right) - f\left(\frac{\sqrt{f} + f}{f}\right) = \frac{f + f\sqrt{f}}{f} - \frac{f\sqrt{f} + f}{f} = \boxed{\frac{-1}{f}}$$

$$f(f(a)) = \frac{f(a) + 1}{f(a) - 1} = \frac{\frac{a+1}{a-1} + 1}{\frac{a+1}{a-1} - 1} \rightarrow \frac{(a+1) + (a-1)}{a-1} = \frac{2a}{a-1} = a$$

$$a-1 \neq 0 \quad a \neq 1$$

$$f(a) - 1 \neq 0 \quad f(a) \neq 1 \quad \frac{a+1}{a-1} \neq 1 \quad \text{یا } a \neq 0$$

$$D_f = \mathbb{R} - \{1\}$$

$$f(n) = \sqrt{n} - f$$

$$\sqrt{n} - f = -f$$

$$g(n) = \sqrt{n} - 1$$

$$\sqrt{n} - f + f = 0 \rightarrow n = f$$

$$g(a) = f \quad \sqrt{n} - 1 = f$$

$$\sqrt{n} - 1 = f \quad \sqrt{n} = a$$

$$n = \pm \sqrt{a}$$

$$a = \pm \sqrt{a}$$

$$f(n+f) = \sqrt{n} - an + f$$

$$f(f) = 1 - a + f = \boxed{f}$$

$$f \times f = \boxed{1 \times f}$$

$$f(f) = f^2 + f + f = \boxed{f^2}$$

$$f \cos^2 n + a \cos n = \frac{f}{f}$$

$$\cos^2 \theta_0 = \frac{1}{f} \quad \tan \theta_0 = \sqrt{f} \quad \tan^2 \theta_0 = f$$

$$f + f + a + f = \frac{f}{f}$$

$$1 + f + 1 + f = f$$

$$1 + f + 1 + f - f = 0 \xrightarrow{\Delta} 1 - f(1)(-f) - f^2 f = \frac{-1 \pm 11}{14} = \frac{1}{14} = \boxed{\frac{1}{f}} \quad \cos n$$

$$f(3/a) = f$$

$$\frac{-f \pm \sqrt{f^2 + 4f}}{2} = \frac{-f \pm \sqrt{f^2 + 4f}}{2} = \frac{-f \pm \sqrt{f^2 + 4f}}{2}$$