

بازدهم

15, 5

تکلیف 2

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$$f(x) = 2 \Rightarrow 1 - \log_c^{-b} = 2 \Rightarrow \log_c^{-b} = -1 \Rightarrow b = -\frac{1}{c}$$

(2)

$$\Rightarrow c = -\frac{1}{c} \Rightarrow -\frac{c}{c} \Rightarrow c^2 + \frac{c}{c} - 1 = 0 \Rightarrow 2c^2 + c - 2 = 0 \Rightarrow c = \frac{-1 \pm \sqrt{1+16}}{4} = \frac{-1 \pm \sqrt{17}}{4}$$

$$\Rightarrow c = \frac{-1 + \sqrt{17}}{4} \Rightarrow b = -\frac{c}{c} = -1 \Rightarrow f(-1/5) = 1 - \log_{\frac{-1 + \sqrt{17}}{4}}^{-\frac{c}{c} a + 2} = 1 \Rightarrow \log_{\frac{-1 + \sqrt{17}}{4}}^{-\frac{c}{c} a + 2} = 1$$

$$\Rightarrow -\frac{c}{c} a + 2 = \frac{-1 + \sqrt{17}}{4} \Rightarrow -c a + c = 1 \Rightarrow a = 1 \Rightarrow b(a+c) = -2(1 + \frac{1}{c}) = -2 \frac{c+1}{c}$$

$$f(1) = 1 \Rightarrow 1 + c x^a = 1 \Rightarrow c x^a = 0 \Rightarrow c = 0 \text{ (not possible)}$$

$$f(x) = \frac{1}{c} \Rightarrow 1 + c x^a = \frac{1}{c} \Rightarrow c x^a = -\frac{c-1}{c}$$

(2)

$$f(-1) = 1 + c x^a = 1 + \frac{c x^a}{c^b} = 1 + \frac{-\frac{c-1}{c}}{c^b} = 1 - \frac{1}{c^b} = \frac{1}{c^b}$$

$$f(x) = 2 \Rightarrow c + \log_a^b = 2 \Rightarrow \log_a^b = 2 - c \Rightarrow b \cdot a^{2-c} = \frac{2a}{a^c}$$

(2)

$$f(2/c) = 2 \Rightarrow c + \log_a^{2/c a + b} = 2 \Rightarrow \log_a^{2/c a + b} = 2 - c \Rightarrow a^{2-c} = 2/c a + b$$

$$\Rightarrow b \cdot \frac{2a}{2/c a + b} = 2a(2/c a + b) = 4a + 2ab \Rightarrow -2cb + 4a \Rightarrow -\frac{1}{a} b = a$$

$$\Rightarrow \frac{a}{b} = -\frac{1}{a} \Rightarrow -\frac{1}{a} b = a \Rightarrow b = -a^2$$

$$|n^2 - 1| < -n \Rightarrow n > 0 \Rightarrow n^2 - 1 < -n \Rightarrow n^2 + n - 1 < 0 \Rightarrow n \in (\frac{-1 - \sqrt{5}}{2}, \frac{-1 + \sqrt{5}}{2}) \text{ (1)}$$

(1)

$$n < 0 \Rightarrow -n^2 + 2 - n < 0 \Rightarrow n^2 + n - 2 < 0 \Rightarrow n \in (-2, 1) \text{ (2)}$$

(2)

$$\text{(1) } \cup \text{ (2) } \Rightarrow D_f = (-2, 1) \cup (\frac{-1 - \sqrt{5}}{2}, \frac{-1 + \sqrt{5}}{2})$$

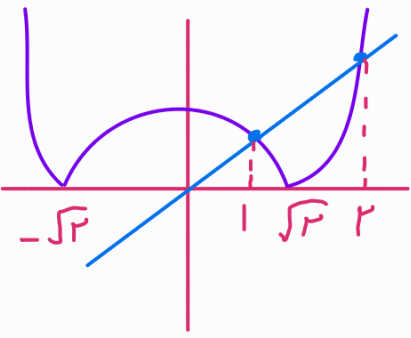
$$f(1) = g(1) \Rightarrow -(1)^f - c(1) + \lambda = 2 + 2^{b-a} = f \Rightarrow 2^{b-a} = f - 2 \Rightarrow b - a = 1 \Rightarrow b = a + 1$$

(2)

$$f^{-1}(1) = -1 \Rightarrow f(-1) = 1 \Rightarrow 2 + 2^{b+a} = 1 \Rightarrow 2^{b+a} = -1 \Rightarrow b + a = f \Rightarrow b + a = a + 1 + a = 2a + 1$$

$$\Rightarrow a = 1 \Rightarrow b = 2 \Rightarrow 2b - a = 2(2) - 1 = 3 \Rightarrow f(2) - 1 = 3 - 1 = 2$$





$$|x^2 - 2| > x$$

جایگزین رو فرستادم به تابع  $y = |x^2 - 2|$   
 بالاتر از  $y = x$  باشه!

$$(-\infty, 1) \cup (2, +\infty)$$