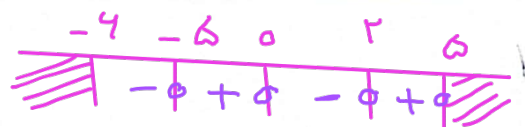


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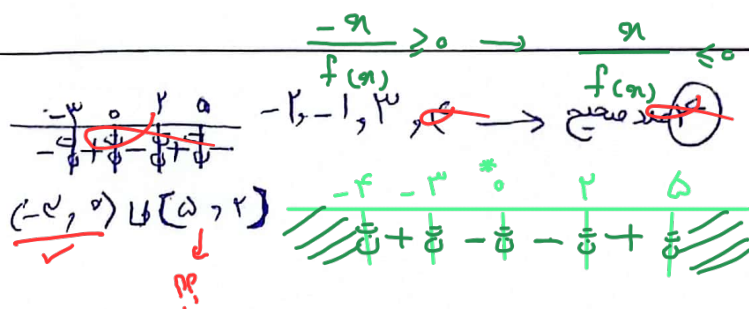
$$D_f = [-5, 0] \cup [2, 5]$$



ولی ممکن است

مقدور در وقت باسد $n f(n)$

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حالت اول: $f(n) < 0$, $n > 0$

حالت دوم: $f(n) > 0$, $n < 0$

$$D_g = (-3, 2) - \{0\}$$

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

$$f(2) - 2f(2) = 4 - 4 + 2 = 2$$

$$f(2) = -2$$

$$f(-2) - 2f(2) = 4 + 4 + 2 = 10$$

$$f(-2) + 4 = 10$$

$$f(-2) = 6$$

۲ ✓

$$f(f(5)) + f(f(1))$$

$$7 + 2 = 9$$

$$① - 2 \times 1 + 3 = 5$$

$$② - 5 - \sqrt{2+5} = 2$$

$$③ 2 \times 2 + 3 = 7$$

۲ ✓

$$f(n) = an^2 - bn + 2$$

$$f(n-1) - f(n) = 4n + 2$$

$$a(n-1)^2 - b(n-1) + 2$$

$$a(n^2 + 1 - 2n) - bn + b + 2$$

$$an^2 + a - 2an - bn + b + 2 - an^2 + bn - 2$$

$$a - 2an + b = 4n + 2$$

$$-2an + a + b = 4n + 2$$

$$-2a = 4$$

$$a = -2$$

$$b = 5$$

۲ ✓ $a - b = -7$

$$\frac{r f(r) + f(-1)}{1 f(r)} = \textcircled{V}$$

$$r^2 - (r \times r) + 1 = 1$$

$$-1^2 - (r \times -1) + 1 = 0$$

$$r^2 - (r \times r) + 1 = -1$$

$\textcircled{V}$ ✓

6

$$\frac{r f(\varepsilon) - r f(-r)}{f(r)} =$$

$$r \times \varepsilon + 1 = 1r$$

$$(-r)^r = \varepsilon$$

$$r \times r + 1 = r$$

$$\frac{r \times 1r - r \times \varepsilon}{r} = \textcircled{\frac{r1}{r}}$$

$\textcircled{V}$ ✓

V

$$\frac{f(f(\varepsilon)) - f(f(r))}{f(1) - r} = \textcircled{0}$$

$\textcircled{V}$ ✓

Λ

$$f(f(\sqrt{r} - r))$$

$$\frac{(\sqrt{r} - r)^r + \varepsilon(\sqrt{r} - r) + 1}{(\sqrt{r} - r)^r + \varepsilon(\sqrt{r} - r) + 0} = \frac{r + \varepsilon + \cancel{r\sqrt{r}} + \cancel{\varepsilon\sqrt{r}} - \cancel{r} - \cancel{1} + 1}{r + \varepsilon - \cancel{r\sqrt{r}} + \cancel{\varepsilon\sqrt{r}} - \cancel{r} + 0}$$

$$\frac{\Lambda}{\varepsilon} = r \rightarrow f(r)$$

$\textcircled{V}$ ✓

$$\frac{r^r + \varepsilon \times r + 1}{r^r + \varepsilon \times r + 0} = \textcircled{\frac{r1}{1r}}$$

9

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

$$\sqrt{n}^r + \frac{1}{\sqrt{n}^r} \Rightarrow \left(n + \frac{1}{n}\right)^r \rightarrow n^r + \frac{1}{n^r} + r$$

$$\cancel{n^r} + \frac{1}{\cancel{n^r}} + r = \cancel{n^r} - \frac{1}{\cancel{n^r}} = r$$

$\textcircled{V}$ ✓

1.