

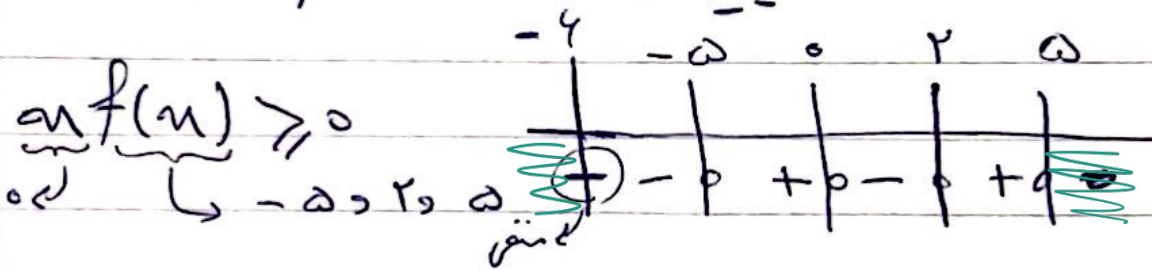
۲. آزمون!

هم دفتر B

السادس

Year. Month. Date. ()

$$f(x) \geq 0$$

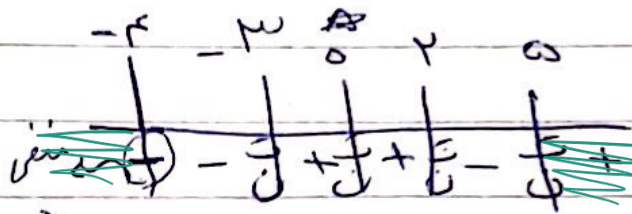


(1)

2

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

$$\frac{-x}{f(x)} \geq 0$$



(2)

3

→ -5, -3, 0, 2, 5

نقطه ادامه پیدا نمی کند!

در این صورت نمودار به کمک این

نقطه پیدا می شود و در این جا

$$(-5, -3) \cup (0, 2) \cup (5, +\infty)$$

$$(-5, -3) \cup (0, 2) \rightarrow \text{عدد صحیح}$$

این دو در نظر نمی گیریم

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

(3)

2

$$f(2) = -2$$

$$f(-2) - 2f(-2) = (-2)^2 - 3(-2) + 4 = 10$$

$$f(-2) = 10$$

$$f(1) = r(1) + r = a$$

$$f(a) \rightarrow a - \sqrt{a+r} = r \quad I \rightarrow f(r) = r$$

$$I + II = r + r = 2r \quad r(r) + r = r \quad II$$

$$f(n-1) = a(n-1) - b(n-1) + r =$$

$$an^r + a - r an - b n + b + r \rightarrow$$

$$an^r + a - r an - b n + b + r - \underbrace{an^r + b n - r}_{f(n)} = 4n + r$$

$$a + b - r an = 4n + r \quad -ra = 4 \rightarrow a = -\frac{4}{r}$$

$$a + b = r \rightarrow -\frac{4}{r} + b = r \rightarrow b = a$$

$$a - b = -\frac{4}{r} - (a) = -\frac{8}{r}$$

$$f(n) = \frac{n^r + 6n + 2}{n^r + 6n + r} = \frac{(n+r)^r + 1}{(n+r)^r + r}$$

$$f(\sqrt{r} - r) = \frac{(\sqrt{r})^r + 1}{(\sqrt{r})^r + r} = \frac{r}{r} = \frac{r}{r}$$

$$f\left(n - \frac{1}{n}\right) = \frac{n^2 + 1}{n^2} \rightarrow n^2 + \frac{1}{n^2} + 2 - 2 = \quad (1)$$

$$f(-2) = (-2)^2 + 2 = 11 \quad \left(n - \frac{1}{n}\right)^2 + 2$$

$$g(n) \neq 0 \quad \frac{f(n)}{g(n)} \quad f(n) = \{0, 1, 2, 4\} \quad (1)$$

$$\{0, 1, 2\} \leftarrow \frac{f(n)}{g(n)} \quad g(n) = -2 \leq n \leq 2 \quad (2)$$

$$n=0 \rightarrow f(0) = 2 \quad g(0) = \sqrt{0} = 0 \rightarrow \frac{2}{0}$$

$$n=1 \rightarrow f(1) = -4 \quad g(1) = \sqrt{1} = 1 \rightarrow \frac{-4}{1}$$

$$n=2 \rightarrow f(2) = 0 \quad g(2) = \sqrt{4} = 2 \rightarrow 0 \quad \frac{f}{g} = \left\{0, \frac{2}{1}, \frac{1}{2}, -\frac{4}{1}\right\} \quad (2, 0)$$

فست ب (فرصت بعد بعد سوال 10)

$$15 \quad 2f(n) = \{(2, 2), (3, 8), (-5, 4), (1, -4)\} \quad (1)$$

$$f(n) + 1 = \{(2, 2), (3, 9), (-5, 5), (1, -1)\}$$

$$3f(n) + 1 = \{(2, 4), (3, 29), (-5, 13), (1, 13)\}$$

$$20 \quad f(2n) = \left\{(1, 1), \left(\frac{3}{2}, 4\right), \left(-\frac{5}{2}, 2\right), \left(\frac{1}{2}, -2\right)\right\}$$

$$f \circ g = \{(1, 4), (2, 2), (3, 2)\}$$

(10)

$$f \circ g = \{(2, 4), (3, 2), (1, 1)\}$$

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سوال ۸ قسمت ب) $\frac{g(n)}{f(n)} \rightarrow \frac{g(n)}{f(n)} \rightarrow f(n) \neq 0$

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دامنه مشترک $\{0, 1\}$
 $n=0 \rightarrow g(0)=3 \rightarrow f(0)=2 \rightarrow \frac{3}{2}$

$n=1 \rightarrow g(1)=2\sqrt{2} \rightarrow f(1)=-4 \rightarrow \frac{2\sqrt{2}}{-4} = -\frac{\sqrt{2}}{2}$

15

$$\frac{g}{f} = \{(0, \frac{3}{2}), (1, -\frac{\sqrt{2}}{2})\}$$

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