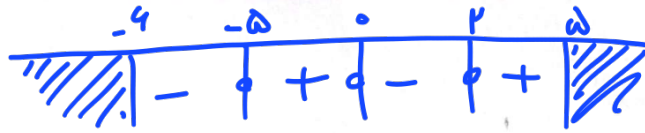


$$y = \sqrt{n f(n)}$$



14,0

(10) $n f(n) \geq 0$

$$([n, -a) \cup [0, r])$$

$$D_f = [-c, a] - ([0, r] \cup [n, -a])$$

$$D_f = [-a, 0] \cup [r, a]$$

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

$$D_f = (-c, 0) \cup (0, r) \checkmark$$

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

(y)

$$A = \{-c, -1, 0\}$$

$$n_A = c$$

$$n \geq 0$$

$$f(n) \in [0, \infty) \subseteq f(n) \geq 0, n < 0$$

$$f(n) - r f(r) = n^2 - cn + c$$

$$\Rightarrow f(r) - r f(r) = c - c + (c) f(r) = -r$$

$$\Rightarrow f(-r) - r f(r) = c + c + c = 1f$$

$$f(-r) + c = 1f \quad f(-r) = 1 \checkmark$$

(y)

$$f(f(a)) + f(f(a)) =$$

$$f(f(a)) = f(r) = v$$

$$f(f(a)) = f(a) = r$$

$$r + v = 9 \checkmark$$

(y)

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

$$n = 1 \rightarrow f(n+1) = r$$

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

$$(y) \quad a - b = 1 \checkmark$$

$$f(n) = \frac{n^2 + \epsilon n + a}{n^2 + \epsilon n + v}$$

$$f(\sqrt{c} - 1) = \frac{(\sqrt{c} - 1)^2 + \epsilon(\sqrt{c} - 1) + a}{(\sqrt{c} - 1)^2 + \epsilon(\sqrt{c} - 1) + v} = \frac{v - \epsilon\sqrt{c} + \epsilon\sqrt{c} - n + a}{v - \epsilon\sqrt{c} + \epsilon\sqrt{c} - n + v} = \frac{\epsilon}{\epsilon} = \frac{r}{c}$$

$$\frac{n - \frac{1}{n}}{n^2 - 1} = -c$$

$$n = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$= \frac{-c \pm \sqrt{13}}{1}$$

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

$$f(-3) = 11$$

$$\frac{n^2 - 1}{n} + c = 0$$

$$n^2 + \epsilon n + 1 = 0 \Rightarrow$$

متغير قابل قبول

$$\left(\frac{-c \pm \sqrt{13}}{1} \right)^2 + 1$$

$$\left(\frac{-c \pm \sqrt{13}}{1} \right)^2$$

$$9 - n^2 \geq 0$$

$$n^2 \leq 9$$

$$-c \leq n \leq c$$

$$D_g = [-c, c]$$

$$D_f \cap D_g = \{0, 1, 2\}$$

$$g(n) = \{(0, c), (1, \sqrt{c}), (2, \sqrt{c})\}$$

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

$$f(n) = \{(1, 0), (1, -\epsilon), (0, 2), (1, 1)\}$$

$$f_g = \{(0, \frac{r}{c}), (1, \sqrt{r}), (2, \sqrt{r})\}$$

$$\{(0, \frac{r}{c}), (1, \frac{\sqrt{r}}{1})\}$$

$$f(n) = \{(1, 1), (1, \epsilon), (-1, \epsilon), (1, -\epsilon)\}$$

$$f(n+1) = \{(1, \frac{r}{c}), (1, \frac{c}{c}), (-1, \frac{c}{c}), (1, -1)\}$$

$$f(n) = \{(1, 1), (1, \epsilon), (-1, \epsilon), (1, -\epsilon)\}$$

$$f(n) + 1 = \{(1, \epsilon), (1, \epsilon), (-1, \epsilon), (1, \epsilon)\}$$

$$\{(1, 1), (\frac{r}{c}, 1), (-\frac{c}{c}, 1), (\frac{1}{c}, -1)\}$$

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$$f - g = \{(1, 1), (1, \epsilon), (1, \epsilon)\}$$

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$$\frac{f}{g} = \{(1, \epsilon), (1, \frac{c}{c}), (1, -1)\} = \{(1, \epsilon), (1, -1)\}$$