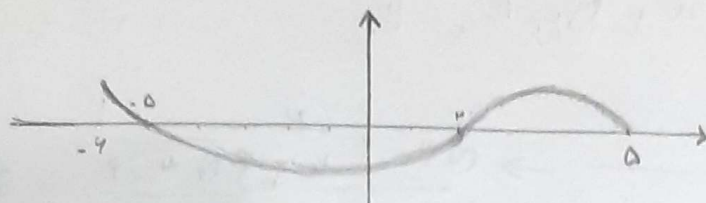


$$f(x) = y$$

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



$$I \cap II = [2, 6]$$

$$\frac{\sqrt{x}}{I} \times \frac{\sqrt{f(x)}}{II}$$

$$(-\infty, +\infty)$$

$$[-4, -2] \cup [2, 6]$$

-2

$$\sqrt{-x} \rightarrow (-\infty, 0]$$

$$\sqrt{f(x)} \rightarrow [2, 6] \cup [-10, 0]$$

$$D_f = [-10, 0] \cup \{0\}$$

$$D_f = [-10, 0] \cup \{0\}$$

$$x = 3$$

-3

$$f(x) - y f(y) = x^2 - 10x + 1$$

$$f(-2) = 0$$

$$f(2) - y f(y) = \frac{f(2) - y f(y)}{2}$$

$$-f(2) = 2$$

$$f(2) = 2$$

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

$$f(-2) = 1$$

$$f(x) = \begin{cases} x - \sqrt{x+1} & : x > 0 \\ 2x + 1 & : x \leq 0 \end{cases}$$

$$f(x) = f(f(x)) + f(f(1)) = 1 + 2 = 3$$

$$0 - \sqrt{0+1} = -1$$

$$0 \rightarrow 1$$

$$f(x) = ax^2 - bx + 1$$

$$f(x-1) - f(x) = 4x + 1$$

$$x=1 \quad a-b=2$$

$$f(0) - f(1) = 4x + 1$$

$$a-b=1$$

-5

$$f(n) = n^r + f(n+1) \xrightarrow{r+1} (n+1)^r + 1$$

$$\xrightarrow{f(\sqrt{r}-1)=0} f(\sqrt{r}-1) = 0$$

$$n^r + f(n+1) \xrightarrow{r+1} (n+1)^r + 1$$

$$\underline{(n+1)^r + f(n+1) + 0}$$

$$(n+1)^r + f(n+1) + 1$$

$$\frac{(n+1)^r + 1}{(n+1)^r + 1} \rightarrow \frac{\cancel{(n+1)^r} + 1}{\cancel{(n+1)^r} + 1} \rightarrow 1$$

$$\mu + \mu \rightarrow 0$$

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

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

$$n - \frac{1}{n} = -\mu \quad r + r = 11$$

$$f(n) = \{ \cancel{0}, \cancel{1}, \cancel{2}, \cancel{3}, \dots, (n, 1) \}$$

$$g(n) = \sqrt{9 - n^2} \rightarrow [-\mu \rightarrow [-\mu, \mu]] \quad \} 0, 1, 2$$

$$\text{ب) } \frac{f}{g} = \frac{\mu}{-\mu} = \frac{-\mu}{\sqrt{\mu}} \rightarrow 0, 1, 2$$

$$\text{ج) } \frac{g}{f} = \frac{\mu}{r} = \frac{\sqrt{\mu}}{-\mu} \rightarrow 0, 1$$

$$f(n) = \{(1, 1), (2, 1), (3, 1), \dots, (n, 1)\}$$

$$\text{الف) } f(n) = \{(1, 1), (2, 1), (3, 1), \dots, (n, 1)\}$$

$$\text{ب) } f(n+1) = \{(1, 1), (2, 1), (3, 1), \dots, (n+1, 1)\}$$

$$\text{ج) } f(n+1) = \{(1, 1), (2, 1), (3, 1), \dots, (n+1, 1)\}$$

$$\text{د) } f(n) = \{(1, \frac{1}{n}), (2, \frac{1}{n}), (3, \frac{1}{n}), \dots, (n, \frac{1}{n})\}$$

$$f(x) = \{(\underline{2, 3}), (\underline{7, 2}), (\underline{1, 4}), (\underline{3, 1}), (\underline{5, 2})\}$$

$$g(x) = \{(\underline{1, 5}), (\underline{2, 1}), (\underline{-1, 4}), (\underline{2, -3}), (\underline{3, -1})\}$$

الف ، $f - g = \{(\underline{2, 2}), (\underline{1, 4}), (\underline{3, 2})\}$

ب) $\frac{f}{g} = \{(\underline{2, 4}), (\underline{7, 4}), (\underline{1, 1}), (\underline{3, 2}), (\underline{5, 2})\}$

✓ $\left\{ (\underline{2, 4}), (\underline{1, 4}), (\underline{3, -2}) \right\}$
تدريج شده