

19/10

آینه زنگنه

$$f(n) = \left(\frac{1}{r}\right)^{n-1} - 1 \quad f(n+1) = \left(\frac{1}{r}\right)^{n-1} - 1 \quad (5) (1)$$

$$y = \sqrt{n^r f(n+1)} \quad n^r (r^{1-n} - 1) \geq 0$$

$$r-1=0 \rightarrow r=1$$

$$dy = ? \quad \frac{0}{+1+1} = 0 \quad dy = [0 \ 1] \quad \begin{matrix} 1-n=0 \\ n=1 \end{matrix}$$

$$f(n) = \sqrt{n+1(n+1)}$$

$$f(-n) = \sqrt{-n+1-n+1} \quad n=r$$

$$df(-n) = ? \quad \begin{array}{c} -n-n+1 \\ -n+1 \end{array} \quad \begin{array}{c} -n+n-1 \\ -n+1 \end{array}$$

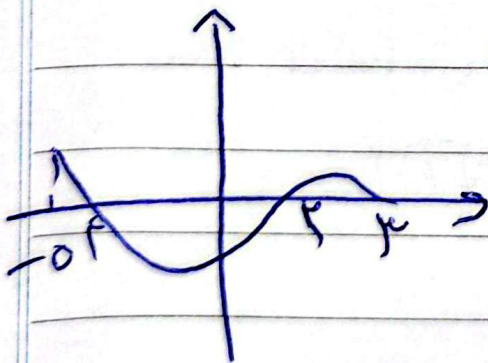
$$-r(n+1) \geq 0$$

$$r(-n+1) \geq 0$$

$$n=1$$

$$df(-n) = [0 \ 1]$$

$$y = \sqrt{\frac{n-1}{f(n)}} \quad n=1 \quad n=r_0 r_0 - r$$



$$\begin{array}{c} -r \\ -0.5 \\ 1 \\ 0 \\ 1 \\ 2 \\ 3 \end{array}$$

$$dy = (-r, 1] \cup (r, r)$$

$$f) p y_1 = D y_1 \sqrt{-(a+b)}$$

5

$$y_1 = \frac{1}{9m^4 - 4m^2 - 8m - 4} \quad \begin{aligned} & 9m^4 - 4m^2 - 8m - 4 \\ & (9m^4 - 4m^2 + 1) - 2^2 - (2m - 1)^2 \end{aligned}$$

$$y_2 = \frac{1}{m^2 + 9m + 10} \quad \begin{aligned} & m^2 - 2 - 10 = m^2 + 9m + 10 \\ & (m^2 - 1)^2 - (m+2)^2 \end{aligned}$$

$$(m^2 - 1)^2 - (m+2)^2 = 0$$

$$\begin{aligned} a &= -1 \\ b &= -2 \end{aligned}$$

$$\rightarrow m^2 - 1 = 2 + m \rightarrow m^2 - 2 - m = 0$$

$$\sqrt{-(-1-2)} = \sqrt{3} = 1$$

$$g) f(m) = m^2 + m \quad D y = ?$$

$$y = \sqrt{m^2 + m} = \frac{4m}{m^2} = \frac{4}{m}$$

$$y = \sqrt{f(m) - f\left(\frac{1}{m}\right)} \quad y = \sqrt{\frac{1}{m^2} (m^4 - 4m^2) + \frac{1}{m^2} (m^2 - 1)} \quad 5$$

$$y = \sqrt{\frac{1}{m^2} (m^4 - 4m^2) + \frac{1}{m^2} (m^2 - 1)}$$

$$\Rightarrow \sqrt{\frac{1}{m^2} (m^4 - 4m^2) + \frac{1}{m^2} (m^2 - 1)}$$

$$D y = [-2, 0) \cup [2, +\infty)$$

$$\begin{aligned} & -2 < 0 < 2 \\ & -1 < 0 < 1 \end{aligned}$$

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

⑤ (u

$$n^2+n=2 \rightarrow n=1$$

$$f(1) + f(10) = ?$$

$$n^2+n=10 \rightarrow n=3$$

$$f(1) = 2-1=1$$

$$f(1) + f(10) = 8$$

$$g(10) = 8-1=7$$

$$f(n) = n^2 - 4n^2 + 12n + 1 - 1 \rightarrow (n-2)^2 + 1$$

$$g(n) = n^2 + 9n^2 + 20n + 24 - 24 \rightarrow (n+3)^2 + 24$$

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

$$\frac{(\sqrt{2}-1-3)^2 - 24}{(\sqrt{2}-1+3)^2 + 24} = \frac{2-24}{2+24} = -\frac{22}{26} = -\frac{11}{13}$$

$$f(n) = \sqrt{\frac{n^2+n}{n^2-n+1}}$$

$$0 \leq R - \{1, 2\}$$

(a

$$(n-1)(n-2) \rightarrow 2 = 2, 2$$

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

⑤

$$\frac{g}{f} = ? \quad \left\{ \left(2, \frac{1}{2} \right), \left(0, 4 \right) \right\}$$

$$\frac{a+b}{c} = ?$$

$$f(x) = \sqrt{x+1} \sqrt{x-1}$$

$$f(x) = \sqrt{(x-1)(x+1)}$$

(11/10)

(1

$$g(x) = \sqrt{x-1} \sqrt{x-1}$$

$$g(x) = \sqrt{(x-1)(x-1)} \rightarrow \sqrt{x-1} + 1$$

$$f(x) + g(x) = a + b\sqrt{x+c} \quad \sqrt{x-1} + 1 + \sqrt{x-1} - 1$$

$$\frac{a+b}{c} = \frac{1}{1} \quad \text{Subst} = 2\sqrt{x-1} \rightarrow a=0, b=2, c=-1$$

$$10) f(m) = \{(1, 2), (3, -1), (5, 2), (-1, 4)\}$$

$$g(m) = \{(-4, 3), (1, -1), (3, 2), (-1, 0)\}$$

$$f(m) = \left\{ \left(\frac{1}{r} + 2 \right), \left(\frac{r}{r} - 1 \right), (5, 2), \left(-\frac{1}{r}, 4 \right) \right\}$$

$$f(m^2) = \{(\pm 1, 2), (\pm \sqrt{3}, -1), (\pm 2, 2)\}$$

$$2g^2(m) + 1 = ? \{(2, 19), (1, 13), (3, 9), (-1, 1)\}$$

$$\frac{pf}{g} = ? \left\{ (10-4), (3-1), \left(-1, \frac{13}{0} \right) \right\}$$

$$\left\{ (10-4), (3-1) \right\}$$