

Date:

Sub:

19, 10 آفرین به

الحمد لله

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

$$\sqrt{x+1} \sqrt{x-1} \pm 1 = \sqrt{(x-1) \pm 1}^2 \quad f(x)$$

$$\sqrt{x-1} \sqrt{x-1} \pm 1 = \sqrt{(x-1) \pm 1}^2 \quad y(x)$$

$$f(x) + y(x) = \sqrt{x-1} + \sqrt{x-1} + 1 - 1 = 2\sqrt{x-1} \quad a=0 \quad c=-1 \quad \frac{a+b}{a-b} = \frac{0+1}{0-1} = -1$$

$$f(x) = \frac{x+1}{x^2-1} \quad y(x) = \{(1,1), (1,0), (1,\infty), (0,1)\} \quad \frac{y}{f} \quad (2)$$

$$\frac{x+1}{(x-1)(x+1)} \quad x \neq 1, x \neq -1 \quad \frac{x+1}{x-1} = \frac{x}{x-1} + \frac{1}{x-1}$$

$$\frac{y}{f} = \{(0,1), (1, \frac{1}{2})\} \quad (3)$$

$$f(x) = \{(1,1), (1,-1), (1,1), (-1,1)\} \quad y(x) = \{(1,1), (1,-1), (1,1), (-1,1)\} \quad (4)$$

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المسألة الأولى

$$1) y = \frac{1}{n^2 - 2n} \quad 4n^2 - 2ny = 1 \quad yn^2 - 2n - 1 = 0$$

$$y = 0 \quad 0n^2 - 2n - 1 = -1$$

$$y \neq 0 \quad 4n^2 - 2ny = 1 \quad 4n^2 \pm \sqrt{4n^2 - 2ny} = 1 \quad 4n^2 \pm \sqrt{4n^2 - 2ny} = 1$$

$$4n^2 \pm \sqrt{4n^2 - 2ny} = 1 \quad 4n^2 \pm \sqrt{4n^2 - 2ny} = 1$$

$$R_f = (-\infty, -1] \cup [0, +\infty)$$

النتيجة ①

$$\Delta = 4n^2 - 2ny = 1 \quad \frac{-b}{2a} = \frac{1}{4} = \frac{1}{4} \quad \frac{-b}{2a} = \frac{1}{4} = \frac{1}{4}$$

$$2) y = -n^2 + 4n + 2 \quad \frac{-b}{2a} = \frac{-4}{-2} = 2 \quad \frac{-b}{2a} = \frac{-4}{-2} = 2$$

$$3) y = \sqrt{4n - n^2} \quad \frac{-b}{2a} = \frac{-4}{-2} = 2 \quad \frac{-b}{2a} = \frac{-4}{-2} = 2$$

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النتيجة ②

$$1) y = n^2 - 2n + 1 \quad R_f = \mathbb{R}$$

$$2) y = n^2 - 4n + 2 \quad R_f = \mathbb{R}$$

$$3) y = \sqrt{4n - 4n^2} \quad R_f = [0, +\infty)$$

$$4) y = (n^2 - 4n + 1)^2 \quad R_f = [0, +\infty)$$

النتيجة ③

$$1) y = \frac{3n+1}{n-2} \quad R_f = \mathbb{R} - \{2\}$$

$$2) y = \frac{2n+1}{n+1} \quad R_f = \mathbb{R} - \{1\}$$

$$f_{(2n)} = \left\{ \left(\frac{1}{2}, 2 \right) \left(\frac{\sqrt{2}}{2}, -1 \right) (2, 2) \left(-\frac{1}{2}, 4 \right) \right\} \quad \text{ن های } f \text{ باید حقیق برابر شوند!} \quad (3)$$

$$f_{(2)} = \left\{ (1, 2) (-1, 2) (\sqrt{2}, -1) (-\sqrt{2}, -1) (2, 2) (-2, 2) \right\} \quad \text{همه ن های } f \text{ را برابر } 2 \text{ قرار دهیم!}$$

$$2g'_{(n)+1} = \left\{ (-2, 19) (1, 3) (3, 9) (-1, 1) \right\} \quad \text{این عمل ردی و ن های و اعمال میشود:}$$

$$\frac{2f}{g} = \left\{ (1, \frac{2 \times 2}{-1}) (3, \frac{2 \times -1}{2}) (-1, \frac{2 \times 4}{2}) \right\} = \left\{ (1, -2) (3, -1) \right\}$$