

مجموعتين زوجيتين

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$$g(x) = \sqrt{(x-1) - 1\sqrt{x-1} + 1} = \sqrt{(x-1)^2} = |x-1| \xrightarrow{+} \sqrt{x-1} - 1$$

$$f(x) = \sqrt{(x-1) + 1\sqrt{x-1} + 1} = \sqrt{(x-1)^2} = |x-1| \xrightarrow{+} \sqrt{x-1} + 1$$

$$a=0 \quad b=1 \quad c=-1 \quad \left(\frac{1}{-1} = -1 \right)$$

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

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

$$f(x) = \frac{x+1}{x^2-1} \quad \begin{matrix} x=1 \\ x=-1 \end{matrix}$$

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الف) $f(1x) = f(\frac{1}{x}, 1)$ و $(\frac{1}{x}, -1)$ و $(1, 1)$ و $(-1, 1)$

ب) $f(x^2) = f(\pm 1, 1)$ و $(\pm 1, -1)$ و $(1, 1)$ و $(-1, 1)$ تحت

ج) $rg^2(x) + 1 = f(-1, 1), (1, 1), (1, -1), (-1, -1)$

د) $\frac{f}{g} = f(1, -1), (1, 1)$

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$$D_f \cap D_g = \{1, 3, -1\}$$

$$h = f^{-1}\left(\overbrace{(1, 1)}^0, \overbrace{(1, 1)}^0\right) \text{ و } \overbrace{(1, 1)}^0, \overbrace{(1, 1)}^0$$

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$$\frac{f(x)}{g(x)+1} \xrightarrow{+} g(x) \neq -1 \xrightarrow{D} \{0, 1, 3\}$$

$$f(x) = (x-1) \sqrt{\frac{x-1}{x+1}} \quad \begin{matrix} x \neq 1 \\ x > 0 \\ x < 0 \end{matrix}$$

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$$f(x) = \sqrt{-(x^2 - 2x + 1)} \quad \begin{matrix} x=1 \\ x=-1 \end{matrix} \xrightarrow{+} \frac{1}{-1} \xrightarrow{+} [1, 1]$$

$$h = f^{-1}(1, 0) \text{ و } (0, 1) \text{ و } (1, 1) \text{ و } (1, 0)$$

$$1) \quad y = x^3 - 3x^2 + 4x - 1 \rightarrow R$$

-1

$$2) \quad y = \frac{1}{x^2 - 1} \rightarrow R - \{-1, 1\}$$

-1

$$3) \quad y = \frac{1}{x^2 - 1} \rightarrow R - \{-1, 1\}$$

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$$7) \quad y = \frac{1}{x^2 - 1} \rightarrow R - \{-1, 1\}$$

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$$8) \quad y = \frac{1}{x^2 - 1} \rightarrow R - \{-1, 1\}$$

$$9) \quad y = \frac{1}{x^2 - 1} \rightarrow R - \{-1, 1\}$$

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$$10) \quad y = \frac{1}{x^2 - 1} \rightarrow R - \{-1, 1\}$$