

الف) $\left. \begin{aligned} y_1^2 &= x_1 + 2x_1^2 \\ y_2^2 &= x_2 + 2x_2^2 \end{aligned} \right\} \text{تابع است } y_1^2 = y_2^2 \quad \text{ج) ?}$

ب) $\left. \begin{aligned} |y| &= x + 3 - x \\ |y| &= x + 3 - x^2 \end{aligned} \right\} |y| = |y|, y = \begin{cases} -2 \\ 2 \end{cases} \quad \text{د) } x = xy \xrightarrow{x=0} y = \text{بهره}$

تابع نیست

الف) $12 - 12 = 0 \Rightarrow D_f = \mathbb{R} - \{4\}$

ب) $\Delta = b^2 - 4ac \Rightarrow 49 - 42 = -15 \Rightarrow D_f = \mathbb{R}$

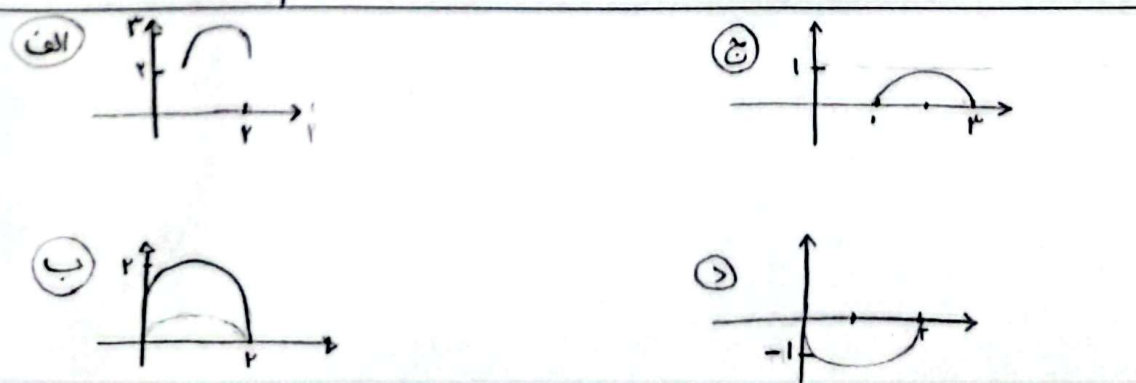
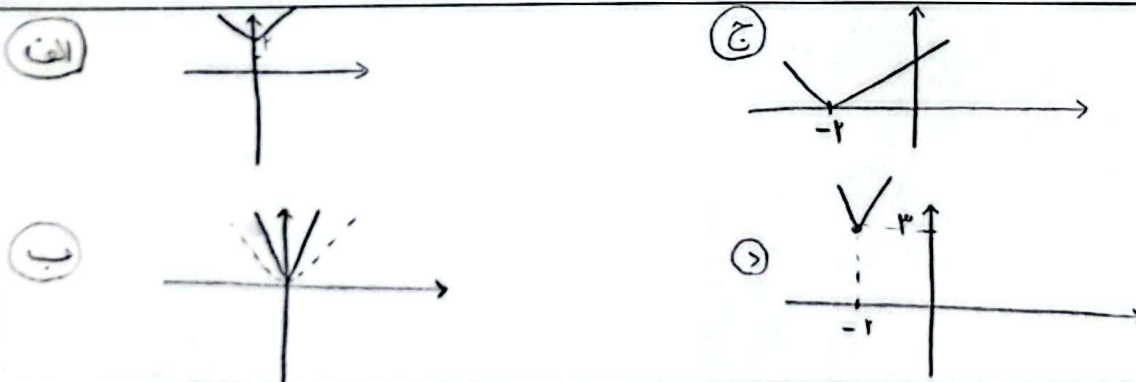
ج) $D_f = \mathbb{R}$

د) $D_f = \mathbb{R} - \{+2, 0, -2\}$

الف) $\left. \begin{aligned} x - x > 0 &\Rightarrow 4 > x \\ x - 2 > 0 &\Rightarrow x > 2 \end{aligned} \right\} 4 > x > 2 \quad \text{د) } |x| + x^2 \text{ همواره مثبت}$

ب) $D_f = \mathbb{R}$

ج) $\begin{aligned} x - 4 &= 0 \\ x &= 4 \end{aligned} \quad \begin{aligned} \sqrt{x-2} &> 0 \\ x - 2 &> 0 \\ x &> 2 \end{aligned} \Rightarrow D_f = [2, \infty) - \{4\}$



الف) $- \frac{2}{\phi} + \frac{3}{\phi} - \frac{4}{\phi} +$ ب) $+ \frac{2}{1} - \frac{3}{1} - \frac{4}{1} +$	٩
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الف) $+ \frac{-2}{1} - \frac{3}{1} -$ ب) $+ \frac{-1}{1} + \frac{2}{1} - \frac{3}{1} +$	٨
الف) $\frac{(x-1)(x+1)(x^2)}{(x+1)(x+2)}$ $+ \frac{-2}{\phi} - \frac{1}{\phi} - \frac{1}{\phi} +$ ب) $\left. \begin{array}{l} \Delta \text{ صورت} = 3^2 - 14 = -7 \\ \Delta \text{ قرع} = 2^2 - 12 = -8 \end{array} \right\} \Rightarrow D_f \in \mathbb{R}$	٩
الف) $y = \sqrt{\frac{x^2 - 1}{x(x+1)(x-1)}} \rightarrow \frac{2}{\text{نصف}} x^2 = 1 \Rightarrow x = 1$ $D_f = (-\infty, -1) \cup (1, \infty)$ ب) $y = \sqrt{\frac{(x+2)(x-2)}{(x-1)(x-4)}}$ $+ \frac{-2}{1} - \frac{1}{1} + \frac{2}{1} +$ $D_f = (-\infty, 2) \cup (4, \infty)$	١٠