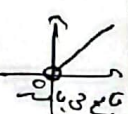
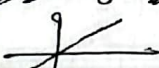


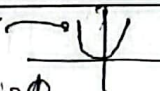
تابع می باشد $y = \sqrt{2x^2 + 2x - 1}$ 

الف) $y^2 = 2x^2 + 2x - 1$

ب) $a \cos y = y \cos a$ اگر $a = \frac{\pi}{2} \Rightarrow y = 2k\pi + \frac{\pi}{2} \quad k \in \mathbb{Z} \Rightarrow$ تابع نمی باشد
زیاد برای x بین و در بار

ج) $\frac{xy}{2} = \sqrt{xy} \quad (x, y) > 0 \Rightarrow \frac{x^2 + y^2 + 2xy}{4} = xy \Rightarrow \frac{(x-y)^2}{4} = 0 \Rightarrow x = y$ 

د) $y^3 - xy^2 + 2y - 2x = 0$ ~~$y^3 - xy^2 + 2y - 2x = 0$~~
 $\frac{y^3 + 2y}{y^2 + 2} = x \Rightarrow x = y$ 

تابع می باشد $y = x^2$ 

الف) $|y| + 2y = x^2$ اگر $y > 0$ $y = x^2$
اگر $y < 0$ $y = -\frac{x^2}{3} \neq \phi$

ب) $[y] + [x] = 1 \Rightarrow$ تابع نمی باشد $\Rightarrow$ اگر $x = 0 \Rightarrow y \in [1, 2)$
بزرگی x و y صورت

$f(x) = \begin{cases} 2x - b & x \geq 3 \\ a + 2x & -1 \leq x \leq 2 \end{cases} \Rightarrow x = 3$
 $2 \times 3 - b = a + 2 \times 3$
 $\Rightarrow a + b = \frac{12 - 12}{6}$

$D_f: [b, a]$ $f(x) = \sqrt{a - bx - x^2} \Rightarrow$ a, b می باشد $\Rightarrow$ $a = b$
 $a - b^2 - b^2 = 0, a - ab - a^2 = 0 \Rightarrow 2b^2 - 2b^2 - 4b^2 = 0$
 $a = 2b^2$ $2b^2(1 - b - 2b^2) = 0$
 $b = 1 \Rightarrow a = 2$
 $\Rightarrow a + b = 1$

$D_f: (-\infty, 1) \Rightarrow ax^2 + bx + c \rightarrow$ عبارت درجه ۲ $\times$ ~~$(x - \frac{c}{a})$~~
 $ax^2 + bx + c = 0 \Rightarrow 2b = -c$ $(x - \frac{c}{a})(ax - \frac{c}{a})$
 $\frac{ax^2 + bx + c}{x - \frac{c}{a}} = \frac{ax^2 - \frac{c}{a}x + \frac{c}{a}x - \frac{c^2}{a^2}}{x - \frac{c}{a}} = \frac{ax^2 - \frac{c^2}{a^2}}{x - \frac{c}{a}}$
 $\frac{(ax - \frac{c}{a})(x + \frac{c}{a})}{x - \frac{c}{a}} = ax + \frac{c}{a}$
 $a = 0$
 $\Rightarrow \frac{1}{a} + c - 2(b) = \boxed{-2b}$

$$y = \sqrt{\frac{x^2 + 2}{x + b}} + a = \sqrt{\frac{(x+a)^2 + 4ab}{x + b}}$$

$$D: (x, +\infty) \Rightarrow \frac{x}{y} - \frac{r}{8} +$$

$$\Rightarrow y = -b = \frac{x+b}{x+a} \Rightarrow b = -x$$

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

$$y = \frac{x}{x^2 + 1}$$

$$\Rightarrow D_y = [-1, 0] \cup [1, +\infty)$$

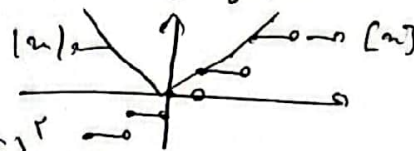
$$\Rightarrow \frac{1}{\sqrt{|x| - 1}}$$

$$|x| - 1 > 0 \Rightarrow |x| > 1 \Rightarrow x > 1 \text{ or } x < -1$$

$$D_y = (1, +\infty) \cup (-\infty, -1)$$

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$$\text{الف) } y = \sqrt{\frac{1}{|x| - [x]}} \Rightarrow |x| - [x] \neq 0 \quad |x| \neq [x]$$



$$\Rightarrow D_y = \mathbb{R} - (\mathbb{N} \cup \{0\})$$

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$$\text{ب) } \sqrt{x} + \sqrt{y} = 9 \quad y = (9 - \sqrt{x})^2 \quad D: x \geq 0$$

$$y = \frac{1}{\sqrt{[x - \frac{1}{2}] + [x - \frac{1}{2}]}} = \frac{1}{\sqrt{[x - \frac{1}{2}] + [x - \frac{1}{2}] + 1}} = \frac{1}{\sqrt{2[x - \frac{1}{2}] + 1}}$$

$$\Rightarrow 2[x - \frac{1}{2}] > 0, \quad [x - \frac{1}{2}] > 0 \Rightarrow x > \frac{1}{2}$$

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$$\sqrt{1 - \log(x - a)} = y \quad \text{① } x - a > 0 \quad x > a \quad x > \frac{a}{y}$$

$$\text{② } 1 - \log(x - a) \geq 0 \quad 1 \geq \log(x - a)$$

$$1 \geq x - a \quad x \leq \frac{1 + a}{y}$$

$$\Rightarrow D: (\frac{a}{y}, a + \frac{a}{y}] \Rightarrow a + \frac{a}{y} - \frac{a}{y} = a = e - b$$

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