

الف) $y^3 - 2ay^2 = 2a-1$ تابع است $y^3 = 2ay^2 + 2a-1$

ب) $(ay^3 \cos y, y \cos ay)$ تابع نیست $y = 1R$

ج) $\frac{ay+y}{2} \sqrt{ay} \rightarrow ay + y - \sqrt{ay} = 0$ تابع است $\sqrt{ay} = \sqrt{y}$

د) $ay^3 + 2ay - y^3 = 0$ تابع است $ay(y^2 + 2 - y) = 0$

ه) $y^3 + ay^2 = 1$ تابع است $y^3 = 1 - ay^2$

ب) $[y] + [ay] = 1$ تابع نیست $y < 1$

الف) $\begin{cases} 2ay^2 - b \\ ay + 2ay \end{cases}$ $ay^2 \rightarrow 14-b$ $ay < -1$ $ay < 14$

الف) $a < b \rightarrow$ تابع نیست $S: ay + b = \frac{b}{a} = \frac{b}{-1} = -b$

الف) $a = b \rightarrow a - b = 0$ $-b^2 + a = 0$ $-b^2 - b = 0$ $-b(b+1) = 0$ $b = 0$ $b = -1$

الف) $\sqrt{aay^2 + baa} = C$ $ay^2 + baa = C^2$ $ay^2 + baa = C^2$

الف) $ba + C = b^2$ $ba + C = 0$ $C = -ba$ $ba + C = 0$ $C = -ba$

$$\sqrt{\frac{ra+r}{a+b} + a} = \sqrt{\frac{ra+r+aa+ab}{a+b}} = \sqrt{\frac{r(a+b)+a(a+b)}{a+b}} = \sqrt{r+a}$$

$$r+b, \quad \boxed{b^2-r}$$

$$\left\{ \frac{(r+a)(a+r+ab)}{a+b} \right\} + \frac{-b}{\frac{r+a}{r+b} + \frac{-rah}{r+a}} = \frac{-1}{-b+b} = \frac{1}{-b+b} = 0$$

ا) $a^2 - a > 0 \quad a(a+1)(a-1) > 0 \quad a \in \{0, -1, +1\}$

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

ب) $|a| - 1 > 0 \neq 0 \quad |a| > 1 \rightarrow a > 1 \quad Dy = (-\infty, -1) \cup (1, +\infty)$

ا) $|a| - [a] \neq 0 \quad |a| \neq [a]$

ب) $\sqrt{ax+y} = 9 \quad (\sqrt{y}, 9-\sqrt{y}) \quad y = x - 18\sqrt{x} + 81$

$$Df_2 = (0, +\infty)$$

$$\sqrt{\left[ra-\frac{1}{r}\right] + \left[ra+r-\frac{1}{r}\right]} \rightarrow \sqrt{r\left[ra-\frac{1}{r}\right] + r} \quad r\left[ra-\frac{1}{r}\right] + r > 0, \neq 0$$

$$\left[ra-\frac{1}{r}\right] > -1 \quad ra-\frac{1}{r} > 0 \quad a > \frac{1}{r} \quad Df_2 = \left[\frac{1}{r}, +\infty\right)$$

$$\sqrt{1-\log(ra-a)} \quad \textcircled{1} > ra-a > 0 \quad a > \frac{a}{r}$$

$$\textcircled{2} \quad 1-\log(ra-a) > 0 \quad \log(ra-a) < 1 \quad ra-a < 10$$

$$Df_2 = (b, c] \quad a < \frac{1+a}{r}$$

$$b^2 \frac{a}{r} \quad c^2 \frac{a}{r} + \frac{a}{r} \rightarrow c-b^2 \frac{a}{r} - \frac{a}{r} < 0$$