

$$\log \frac{1}{r} \geq \log^{p_n - a}$$

$$p_n > a \rightarrow n > \frac{a}{r/a}$$

10
(1)

$$10 \gg p_n - a \rightarrow \frac{10 + a}{r} \gg n$$

$$D_f = \left(\frac{a}{r}, \frac{10 + a}{r} \right]$$

$\downarrow$ $\downarrow$
 b c

$$c - b =$$

$$\frac{10 + a - a}{r} = \frac{10}{r}$$

صغیر

بہرہ بدون اسم صغیر لحاظ میں شود ✓

مرتب نہ دہم بنوسیں

(الف) تابع هست ✓
 $y_1^r = r_{n_1}^r + r_{n_1} - 1$
 $y_2^r = r_{n_2}^r + r_{n_2} - 1$ $\xrightarrow{n_1=n_2} y_1^r = y_2^r \rightarrow y_1 = y_2$ ✓ (1)

(ب) تابع نیست ✗
 $x = \frac{r}{f} \rightarrow \frac{r}{f} \cos y = y \times \cos \frac{r}{f}$ ✓

$y = 0, 2\pi, 4\pi, \dots$

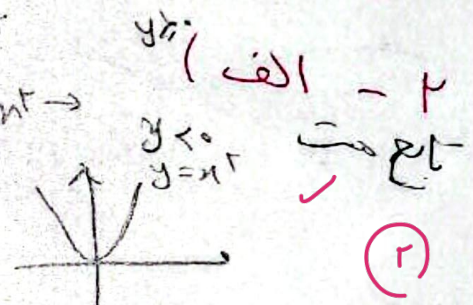
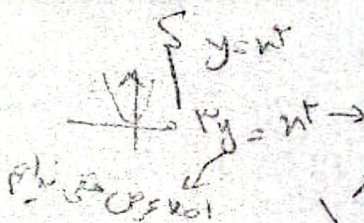
(ج) ✗

(د) تابع هست ✓ راه حل ؟

(ب) تابع نیست ✓
 $n=1$

$-1 + [y] = 1$

$[y] = 2 \rightarrow 2 \leq y < 3$



$f(n) = \begin{cases} 2n^2 + b & n \geq 2 \cup x \leq -1 \\ a + 2n & -2 \leq n \leq 1 \end{cases}$

(ر) 2

$f(2) = 2(4) - b = a + 4 \rightarrow 11 - b = a + 4$

$\rightarrow a + b = 12$ ✓

$h(n) = a - bn - n^2$ صحیح است

$b \hat{=} 1, b > a$ (ر) 2

$n=a \rightarrow a - ab - a^2 = 0 \rightarrow a(1 - b - a) = 0$

$n=b \rightarrow a - b^2 - b^2 = 0 \rightarrow a = 2b^2 \rightarrow \sqrt{\frac{a}{2}} = b$

$\frac{a}{2} \in \mathbb{Z} \rightarrow a = 2k, k \in \mathbb{Z}^+$

$a=0$

$a + b = 1$ ✓

$$an^2 + bn + c > 0 \rightarrow a = 0 \quad (r) \text{ ٩ } \text{ ٩}$$

$$b < 0$$

$$\frac{-c}{b} = 1 \rightarrow c = -b$$

$$P(0) = 1b - 1|b| = 0 - 1b + 1b = 0 \checkmark$$

$$\frac{1n + 1}{n + b} + a \geq 0$$

$$(r) - 4 \text{ ٩}$$

$$n: n = -b \quad -b = 1 \rightarrow b = -1 \checkmark$$

$(n-1)(n+1)$	$-$	0	$+$
n	$+$	0	$+$

$$(r) \checkmark \text{ ٩ } (f) \text{ ٩}$$

$$D_f = [-1; 0] \cup [1; \infty)$$

$$|n| > 1 \rightarrow n > 1 \vee n < -1 \quad (b) \text{ ٩}$$

$$|n| = [n] \text{ : بناء}$$

$$n \in \mathbb{Z}^+ \text{ : بناء (الف) ٩}$$

$$D = \mathbb{R} - \mathbb{W}$$

$$n = 0 \text{ مع تدافعه شئت}$$

$$n \in \mathbb{Z}, n \neq 0$$

$$n \geq 0 \text{ ٩}$$

$$(1) \text{ ٩}$$

$$D_f: [1n - \frac{1}{f}] + [1n + \frac{1}{f}] > 0$$

$$(r) - 4$$

$$[1n + \frac{1}{f} - 1] + [1n + \frac{1}{f}] > 0 \rightarrow 1[1n + \frac{1}{f}] + 1 > 0$$

$$[1n + \frac{1}{f}] > 1 \rightarrow 1n + \frac{1}{f} \geq 1 \rightarrow 1n \geq \frac{1}{f}$$

$$\rightarrow n \geq \frac{1}{f} \checkmark$$

-1

$$\text{ج) } x+y = 2\sqrt{xy} \rightarrow (\sqrt{x}-\sqrt{y})^2 = 0 \rightarrow \sqrt{x} = \sqrt{y} \xrightarrow{x, y > 0} x=y$$

تابع مست

$$\text{د) } xy^2 + 2x - y^3 - 2y = 0 \rightarrow x(y^2 + 2) - y(y^2 + 2) = 0$$

$$(y^2 + 2)(x - y) = 0 \rightarrow x = y$$

تابع مست

↓
معمولاً مست

-1

$$\text{الف) } |x| - [x] \neq 0 \rightarrow |x| \neq [x] \rightarrow D = \mathbb{R} - \mathbb{N}$$

$$\text{ب) } \sqrt{x} + \sqrt{y} = 9 \rightarrow \begin{cases} x \geq 0 \\ \sqrt{y} = 9 - \sqrt{x} \end{cases} \xrightarrow{y \geq 0} 0 \leq x \leq 81$$

$\cap \rightarrow [0, 81]$