

الف) $y^2 - 2n^2 = 2n - 1 \Rightarrow y^2 = 2n^2 + 2n - 1$

$y_1^2 = 2n_1^2 + 2n_1 - 1$
 $y_2^2 = 2n_2^2 + 2n_2 - 1$
 $\xrightarrow{n_1 = n_2} y_1^2 = y_2^2 \Rightarrow y_1 = y_2$ ✓

(2)

ب) $n \cos y = y \cos n \xrightarrow{n=\frac{\pi}{2}} \frac{\pi}{2} \cos y = y \cos \frac{\pi}{2} = 0 \Rightarrow y = \frac{\pi}{2}$
 $y = \frac{\pi}{2}$ ✓

ج) $\frac{n+y}{2} = \sqrt{ny} \xrightarrow{n=y} \frac{2y}{2} = \sqrt{y^2} \Rightarrow y = \sqrt{y^2}$
 $n=y$ ✓

د) $n^2 + 2n - 2y = 0 \Rightarrow n^2 + 2n = 2y$
 $n(n+2) = 2y$
 $n = 2, y = 3$ ✓

هـ) $|y| + n^2 = y \xrightarrow{n=1} |y| = y - 1$
 $y = 1 \Rightarrow |1| = 1 - 1 = 0$ ✓

و) $[y] + [x] = 1 \xrightarrow{n=0} [y] = 1$
 $y = 1$ ✓

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

$f(2) = 11 - b = a + 4$
 $a + b = 12$ ✓

$a - b = -n^2$
 $\frac{b}{-1} + \frac{a}{1} = -n^2 \Rightarrow -b + a = -n^2$

$a + b = -b \Rightarrow a = -2b$
 $a + b = -a \Rightarrow b = -1 \rightarrow a = 2$ ✓

(2)

(2)

(1)

$$a \neq b, c >$$

$$\frac{r}{+d-} \Rightarrow a = 0, b = 2$$

(r)

$$x = 2 \rightarrow 2b + c = 0, c = -2b$$

$$r + (-2b) = 0 - 2b + 2b = 0 \checkmark$$

$$\frac{r + 2}{-2b} + a >$$

$$\frac{r + 2 + a(-2b)}{-2b} = \frac{(r + a)n + 2 + a(-2b)}{-2b}$$

$$\frac{r}{-2b +} \Rightarrow (r)$$

$$a + 2, a = -2$$

$$x = 2 \rightarrow 2b, b = -2 \checkmark$$

$$n^2 - n >$$

$$n(n-1) >$$

$$n(n-1)(n+1) >$$

$$\frac{-1}{-d + p - p +}$$

(r)

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

$$|x| - 1 >$$

$$|x| > 1$$

$$n > 1$$

$$D = (1, +\infty) \cup (-\infty, -1) \checkmark$$

$$|n| - [n] \neq$$

$$|n| \neq [n]$$

$$D = \mathbb{R} - [\underline{2} \cup \{0\}] \checkmark$$

(r)

$$y = 9 - \sqrt{x}$$

$$x \geq 0, 9 - \sqrt{x} \geq$$

$$\sqrt{x} \leq 9$$

$$x \leq 81 \} D = [0, 81] \checkmark$$

$$\left[\frac{2n-1}{f} \right] + \left[\frac{2n+1}{f} \right] > 0$$

$$2 \left[\frac{2n+1}{f} \right] > 2 \left[\frac{2n+1}{f} \right] > 1$$

(r)

$$2n - 2 + \frac{2}{f}$$

$$2n + \frac{2}{f} \geq 2$$

$$2n \geq \frac{2}{f}$$

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

$$D = \left[\frac{1}{f}, +\infty \right) \checkmark$$

$$2n - a >$$

$$n > \frac{a}{2}$$

$$1 - \log(2n - a) >$$

$$1 - \log(2n - a) \leq 1$$

$$2n - a \leq 1$$

$$n \leq \frac{1+a}{2}$$

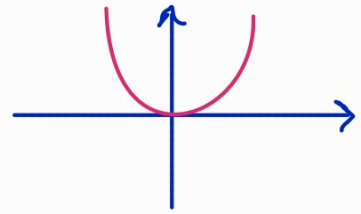
(r)

$$D = \left(\frac{a}{2}, \frac{1+a}{2} \right] = (b, c]$$

$$c - b = \frac{1+a}{2} - \frac{a}{2} = \frac{1}{2} \checkmark$$

۲- طرف چپ تساوی همواره مثبت است پس طرف راست هم باید مثبت باشد: $y > 0$

الف) $|y| + x^2 = 2y \xrightarrow{y > 0} y = x^2$



تابع
مربع