

1- $y^3 - 2n^2 = 2n-1 \Rightarrow y^3 = 2n^2 + 2n-1$

$y^3 = 2n_1^2 + 2n_1 - 1$
 $y^3 = 2n_2^2 + 2n_2 - 1$
 $\xrightarrow{n_1=n_2} y^3 = y^3 \Rightarrow y = y$ جميع

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

2) $\frac{n+y}{2} = \sqrt{ny}$ $n+y = 2\sqrt{ny}$ $\xrightarrow{y=n} (\sqrt{n}-\sqrt{n})^2 = 0$
 $n = y$ جميع

د) $n^2 + 2n - y^2 - 2y = 0$ $n^2 + 2n = y^2 + 2y$ $n(n+2) = y(y+2)$
 $n = y$ جميع

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

ب) $[y] + [x] = 1 \xrightarrow{n=0} [y] = 1$ $y = 1$ جميع

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

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

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

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

$$a \neq b, c >$$

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

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

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

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

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

$$\frac{r}{-d+} \Rightarrow$$

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

$$x = 2 \rightarrow 2b, \quad \boxed{b = -2}$$

$$n^2 - n >$$

$$n(n-1) >$$

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

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

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

$$|x| - 1 >$$

$$|x| > 1$$

$$n > 1$$

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

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

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

$$D = \mathbb{R} - [\mathbb{Z} \cup \{0\}]$$

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

$$x >$$

$$9 - \sqrt{x} >$$

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

$$D = [0, 81]$$

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

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

$$\frac{2n-1}{r} >$$

$$\frac{2n+1}{r} \geq 2$$

$$2n \geq \frac{1}{r}$$

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

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

$$r - a >$$

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

$$1 - \log(r - a) >$$

$$\log(r - a) \leq 1$$

$$r - a \leq 1$$

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

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

$$c - b = \frac{1+a}{r} - \frac{a}{r} = \frac{1}{r} <$$