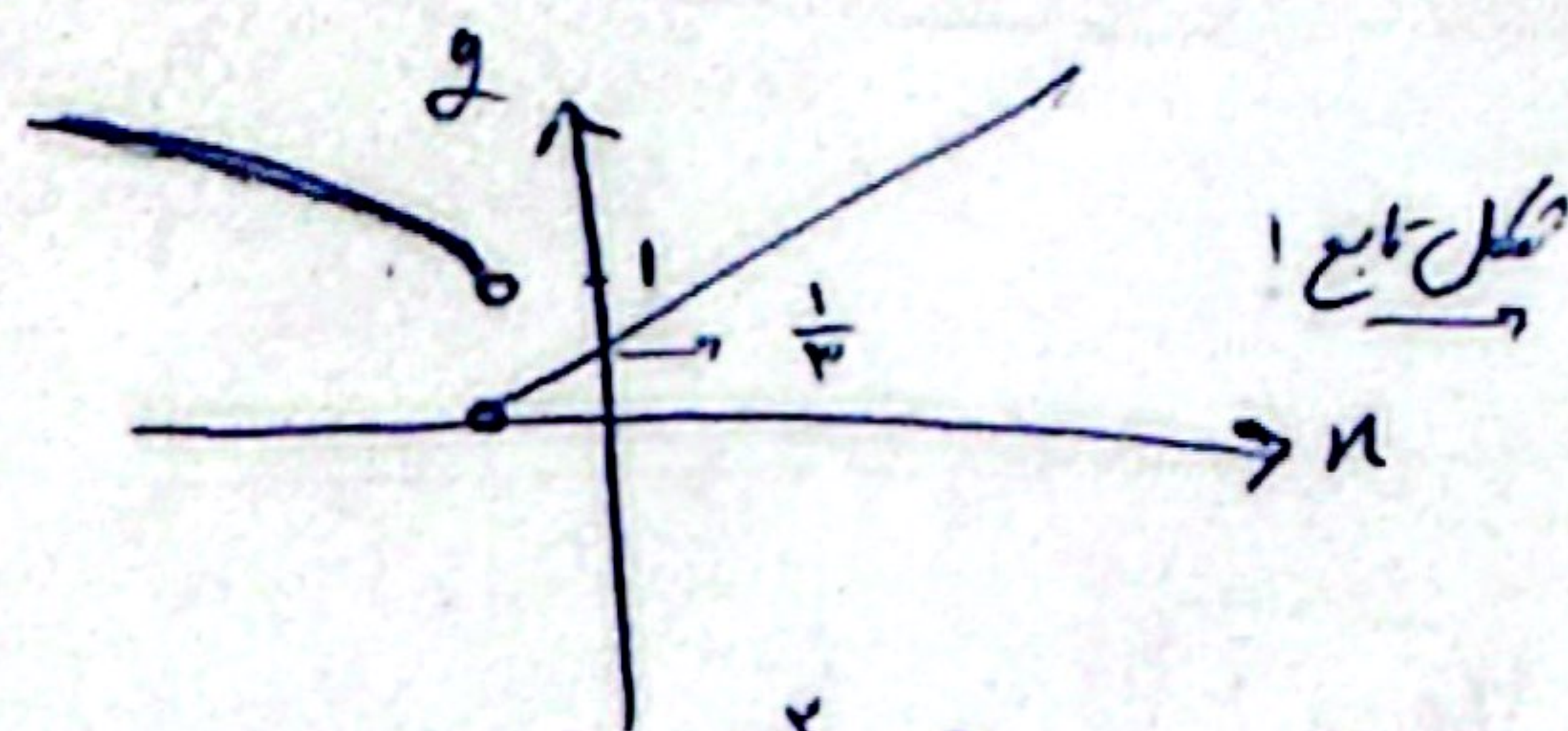


$$x = \begin{cases} 3y-1 & y \geq 0 \\ -y^2 & y > 1 \end{cases} \rightarrow \begin{cases} \frac{x+1}{3} = y & y \geq 0 \\ \sqrt{-x} = y & y > 1 \end{cases}$$



تابع ✓

$$g(n) = \sqrt{\frac{h f(n-2)}{f(n)}}$$

-4 3 0

$$\begin{array}{c} -4 \quad -2 \quad 0 \quad 2 \quad 4 \\ \hline - \quad + \quad - \quad + \quad - \end{array}$$

$$D_g = (-4, -2] \cup [0, 2) \cup [4, +\infty)$$

$$الف) D_f = \mathbb{R} - \{0, 2, -2\}$$

$$f(n) = \frac{2n^2 - 3n + 2}{n^3 - 6n}$$

$$ب) D = (-2, 0) \cup (2, +\infty)$$

$$\sqrt{\frac{2n^2 - 3n + 2}{n^3 - 6n}}$$

-2 0 2

$$الف) y = \sqrt{\frac{2}{n^2 - 2n^2 - 1}} \rightarrow D_f = (-2, +\infty) - \{2\}$$

$$ب) y = \frac{2n^2 + 1}{n^2 - 2[-n]} \rightarrow [-n] \times 2$$

$$D_f = \mathbb{R} - (-2, -2]$$

$$الف) f(n) = \frac{\sqrt{n(n^2-1)}}{\sqrt{|n|+n}}$$

$$D_f = [1, +\infty)$$

$$ب) f(n) = \frac{\sqrt{|n-2|-n^2}}{|n|-1}$$

n ≠ ±1

①

$$D_f = [-2, 1) - \{-1\}$$

الف) $y = \sqrt{(n-2)[n-3]}$

$\frac{1}{1 + \phi + \phi^2} \rightarrow D_f = \mathbb{R}$

ب) $y = \sqrt{|n-1|[n-3]}$

$\frac{1}{1 - \phi + \phi^2}$

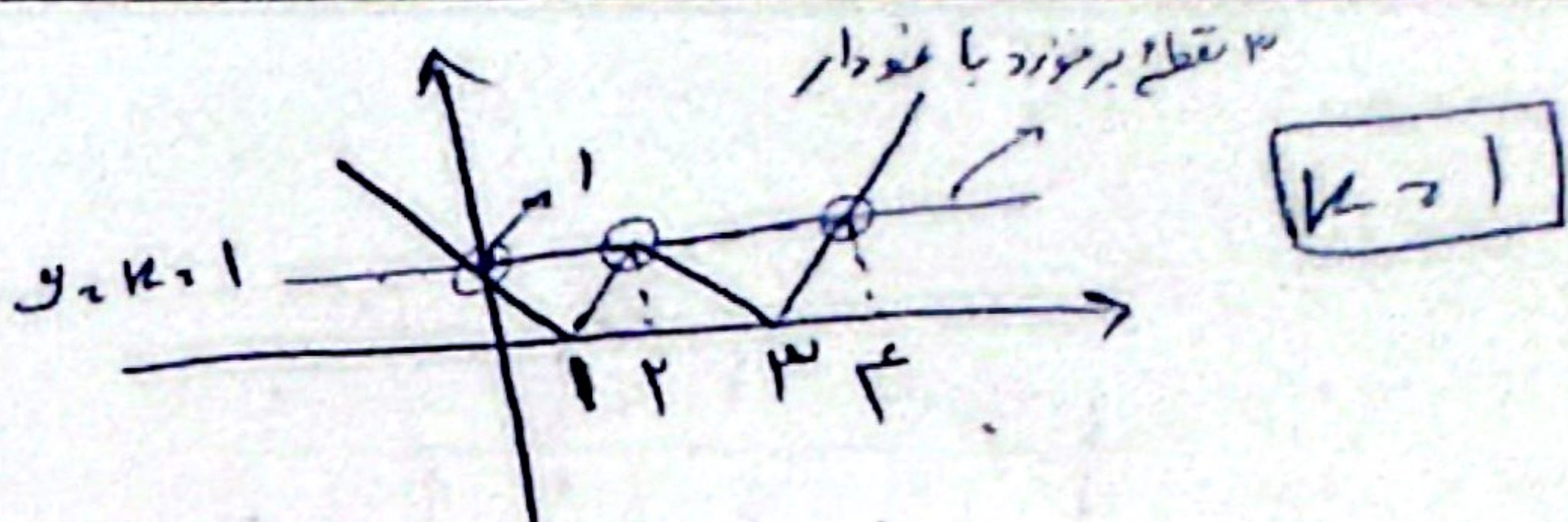
$\rightarrow D_f = [3, +\infty) \cup \{1\}$

$y = \frac{1}{|n-2|-1} - k$

$|n-2|-1 = k$

$|n-2| = k+1$

$(-k-1, -k+1) \cup (k-1, k+1)$



$f(n) = \frac{n^2 + 3n + 2}{(n+1)(n-1)}$

$\rightarrow n \neq (-2, -1, 1) \rightarrow \text{مخرج } n$

$n^2 - 4n + 4 = (n-2)^2 \rightarrow n=2 \rightarrow \text{یکمخرج}$

$y = \frac{1}{n+1} \lg \frac{1}{n}$

$n+1 > 0 \rightarrow n > -1$

$n > 0$

$n \neq 0$

$n \neq 1$

$\lg \frac{1}{n} > 0 \rightarrow \frac{1}{n} > 1 \rightarrow n < 1 \rightarrow \checkmark$

$\rightarrow D_f = (0, 1)$

$D_f = [-\infty, 3] \rightarrow -\infty \leq n \leq 3$

$f(3n^2-1) \rightarrow$

$-\infty \leq 3n^2-1 \leq 3$

$3n^2-1 \leq 3 \rightarrow n^2 \leq \frac{4}{3}$

$-\frac{2}{\sqrt{3}} \leq n \leq \frac{2}{\sqrt{3}}$

$D_{f(3n^2-1)} = [-\frac{2}{\sqrt{3}}, \frac{2}{\sqrt{3}}]$