

	-۵	۰	۱	۵	
n	-	-	۰	+	+
F(n)	+	۰	-	-	۰
P(n)	-	+	۰	-	+

$$D_f = [-5, 0] \cup [1, 5]$$

۱۱۷۵

	$-f$	$-r$	o	r	δ
$-n$	$+$	$+$	o	$-$	$-$
$f(n)$	$-$	o	$+$	o	$-$
$P(n)$	$-$	$+$	$+$	$-$	$+$

$$P_f = (-3, 0) \cup (0, 1) \cup (5, \infty)$$

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$$\rightarrow n=1 \quad f(1) - 1f(1) = (-1)^1 - 1(-1) + 1 = 1 + 1 + 1 = 3$$

$$\text{چون } f(1) = -1 \text{ داریم}$$

$$f(-1) + 1 = 3 \Rightarrow f(-1) = 2$$

$$f(5) = 5 - \sqrt{5+1} = 5 - \sqrt{6} = 5 - 3 = 2$$

$$f(1) = 1 \times 1 + 1 = 2$$

$$f(1) = 1 \times 1 + 1 = 2$$

$$f(5) = 2$$

$$1+1=2$$

$$f(n) = an^2 - bn + 1 \quad f(n-1) = a(n-1)^2 - b(n-1) + 1 =$$

$$a(n^2 - 2n + 1) - b(n-1) + 1 = an^2 - 2an + a - bn + b + 1$$

$$\Rightarrow a + b - 1 = 2n + 1 \quad a(-2n+1) + b = 2n+1 \quad a + b = 2n(1+a) + 1 \Rightarrow$$

$$\begin{cases} -2a = 2 \\ a + b = 1 \end{cases} \rightarrow \begin{cases} a = -1 \\ b = 2 \end{cases}$$

$$\frac{n^r + f_{n+\delta}}{n^r + f_{n+v}} = \frac{-(n-\delta)(n+1)}{n^r + f_{n+v}} \Rightarrow \frac{\cancel{(\sqrt{r}-1)^r} + f\sqrt{r}-1+\delta}{\cancel{(\sqrt{r}-1)^r} + f\sqrt{r}-1+v} = \frac{r}{s} = \frac{r}{\cancel{f}} \quad (2)$$

$$f\left(n - \frac{1}{n}\right) = \frac{n^r + 1}{n^r} = n^r + \frac{1}{n^r}$$

$$\boxed{n - \frac{1}{n} = t} \\ f(t) = n^r + \frac{1}{n^r} = \left(n - \frac{1}{n}\right)^r + r = t^r + r \quad (2)$$

$$f(t) = t^r + r \rightarrow f(-3) = (-3)^r + r = (11) \quad \checkmark$$

$$F = (1, 0), (1, -1), (0, 1), (1, 1)$$

$$g(n) = \sqrt{4-n^2}$$

$$\frac{F}{g} = (1, 0), (1, -\sqrt{2}), (0, \frac{r}{2}) \quad (2)$$

$$\frac{g}{F} = (1, \frac{\sqrt{4}}{1}), (0, \frac{r}{2}) \quad \checkmark$$

$$rF(n) = (1, 1), (2, 1), (-1, 1), (1, -1)$$

$$rF(n) + 1 = (1, 2), (2, 2), (-1, 2), (1, 0)$$

$$rF(n) + 1 = (1, 3), (2, 3), (-1, 3), (1, 2)$$

$$rF(n) = (1, 1), (\frac{r}{2}, 1), (-\frac{r}{2}, 1), (\frac{1}{r}, -1)$$

$$\rightarrow E) \{(1, 1), (1, 1), (-1, 1), (1, 1)\}$$

$$F = (1, 1), (1, 1), (1, 1), (1, 1), (1, 1)$$

$$g = (1, 0), (1, 1), (-1, 1), (-1, -1), (1, -1)$$

$$F - g = (1, 1), (1, 1), (1, 1)$$

$$\frac{rF}{g} = (1, 1), (1, -1) \quad \checkmark \quad (2)$$