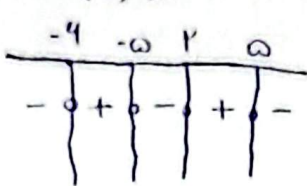
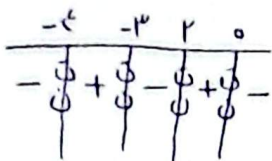


$$n \mid f(n) \geq 0$$



$$\rho_f = [-4, -5] \cup [2, 5]$$

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$$3, 4 \rightarrow \text{درج صحیح}$$

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$$f(n) - 2f(2) = (n-1)(n-3)$$

$$f(2) - 2f(2) = (2-1)(2-3)$$

$$f(2) = 1$$

$$f(-2) - 2f(2) = (-2-1)(-2-3)$$

$$f(-2) - 1 = 15 \rightarrow f(-2) = 16$$

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$$\underbrace{f(f(5))}_3 + \underbrace{f(f(1))}_2$$

$$3 + 2 = 5$$

$$1 \rightarrow -2 \times 1 + 3 = 5$$

$$2 \rightarrow -5 - \sqrt{5+5} = 2$$

$$3 \rightarrow 2 \times 2 + 3 = 7$$

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$$f(n) = an^2 - bn + 2$$

$$f(n-1) - f(n) = 4n + 2$$

$$a(n-1)^2 - b(n-1) + 2$$

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

$$an^2 + a - 2an - bn + b + 2 - an^2 + bn - 2$$

$$a - 2an + b = 4n + 2$$

$$-2an + a + b = 4n + 2$$

$$-2a = 4$$

$$a = -2$$

$$b = 5$$

$\frac{r f(r) + f(-1)}{f'(r)} = \sqrt{}$	$r^r - (r \times r) + 1 = 1$ $-1^r - (r \times -1) + 1 = \omega$ $r^r - (r \times r) + 1 = -1$	6
$\frac{r f(\varepsilon) - r f(-r)}{f(r)} =$ $\frac{r \times 1^r - r \times \varepsilon}{\sqrt{}} = \frac{r1}{\sqrt{}}$	$r \times \varepsilon + 1 = 1^r$ $(-r)^r = \varepsilon$ $r \times r + 1 = \sqrt{}$	7
$\frac{f(f(\varepsilon)) - f(f(r))}{f(1) - r} = 0$		8
$f(f(\sqrt{r} - r))$	$\frac{(\sqrt{r} - r)^r + r(\sqrt{r} - r) + 9}{(\sqrt{r} - r)^r + \varepsilon(\sqrt{r} - r) + \omega} = \frac{\Lambda}{\Sigma} = r \rightarrow f(r)$ $\frac{r^r + \varepsilon \times r + 9}{r^r + \varepsilon \times r + \omega} = \frac{r1}{1\sqrt{}}$	9
$(f(\sqrt{n}))^r - f(n) =$ $\sqrt{n}^r + \frac{1}{\sqrt{n}^r} \Rightarrow (n + \frac{1}{n})^r \rightarrow n^r + \frac{1}{n^r} + r$ $n^r + \frac{1}{n^r} + r - n^r - \frac{1}{n^r} = r$		10