

$$nf(n) \gg 0$$

$$-a, r, a$$

n	$-r$	$-a$	0	r	a
x	$-$	$+$	$+$	$+$	x

سوال اول

$$Df = [-a, r] \cup [r, a]$$

$$-n \rightarrow 0$$

$$f(n)$$

$$0, -r, r, a$$

n	$-a$	$-r$	0	r	a
x	$-$	$+$	$+$	$+$	x

سوال دوم

$$Df = [-a, r] \cup (r, a)$$

سوال سوم

$$f(n) - rf(r) = n^2 - rn + \epsilon$$

$$f(-r) = ?$$

$$f(r) - rf(r) = \epsilon - r + \epsilon$$

$$f(r) - rf(r) = r$$

$$-f(r) = r$$

$$f(r) = -r$$

$$\Rightarrow f(n) - r(-r) = n^2 - rn + \epsilon$$

$$f(n) + \epsilon = n^2 - rn + \epsilon$$

$$f(n) = n^2 - rn$$

$$f(-r) = (-r)^2 - r(-r)$$

$$f(-r) = \epsilon + r$$

$$f(-r) = 1$$

سوال چهارم

$$f\left(\frac{f(a)}{r}\right) + f\left(\frac{f(r)}{a}\right)$$

$$\rightarrow f(a) = a - \sqrt{a} = r$$

$$f(r) = r + \sqrt{r} = a$$

$$f(1) = r + \sqrt{r} = a$$

= 9

did not

Genobar



سوال پنجم ←

$$f(2) = 5a - 2b + 2 \quad f(1) = a - b + 2$$

$$f(1) - f(2) = 15$$

$$a - b + 2 - (5a - 2b + 2) = 15$$

$$f(2) = 9a - 2b + 2$$

$$f(2) - f(3) = 20$$

$$5a - 2b + 2 - (9a - 2b + 2) = 20$$

$$\begin{cases} -4a + b = 15 \\ -4a + b = 20 \end{cases}$$

$$-4a + b = 20$$

$$4a = -4$$

$$a = -1$$

$$a = -1, b = 20 \rightarrow a - b = -1 - (20) = -21$$

سوال ششم ←

$$f(x) = x^2 - 2x + 1$$

$$f(3) = 9 - 6 + 1 = 4$$

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

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

$$f(1) = 1 - 2 + 1 = 0$$

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

$$= 5$$

سوال هفتم (اول هست و دومین به سوال هفت و سومین)

سوال هفتم ←

$$F = \{(1, 2), (2, 1), (3, 1), (4, 1)\}$$

$$F(f(1)) - F(f(2))$$

$$\frac{0}{1} = 0$$

$$f(1) - 2$$



$$\frac{\mu f(\epsilon) - \nu f(1-\nu)}{f(\nu)}$$

$$\rightarrow f(\epsilon) = \mu$$

$$f(1-\nu) = \epsilon$$

$$f(\nu) = \nu$$

← سوال پچھو

$$= \left(\frac{\mu}{\nu} \right)$$

← پچھو

$$\frac{f(n) = n^r + \epsilon n + 9}{n^r + \epsilon n + 9} \Rightarrow \frac{(\sqrt{n} - r)^r + \epsilon(\sqrt{n} - r) + 9}{(\sqrt{n} - r)^r + \epsilon(\sqrt{n} - r) + 9}$$

$$\Rightarrow \frac{r + \epsilon - \epsilon\sqrt{n} + \epsilon\sqrt{n} - 1 + 9}{r + \epsilon\sqrt{n} - \epsilon\sqrt{n} - 1 + 9} = \frac{1}{r} = (r)$$

← سوال پچھو

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

$$(f(\sqrt{n}))^r - f(n) \rightarrow f(\sqrt{n}) = (\sqrt{n})^r + \frac{1}{(\sqrt{n})^r} = n + \frac{1}{n}$$

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

Senobar

