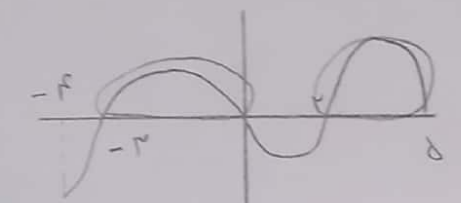
	$y = \sqrt{n \cdot f(2n)} \quad n = \frac{2}{-1+}$ $n \cdot f(n) \geq 0$ $\begin{cases} [-4, -2] & n \leq 0 \\ [2, 8] & n \geq 0 \end{cases}$	۱
	$y = \sqrt{\frac{-n}{f(n)}}$ $f(n) > 0$ $\frac{-n}{f(n)} \geq 0$ $\begin{cases} (-2, 0) & n < 0 \\ (2, 8) & n > 0 \end{cases}$	۲
$f(n) - 2f(2) = n^2 - 4n + 4$ $f(2) - 2f(2) = 4 - 4 + 4$ $-f(2) = 4$ $f(2) = -4$	$f(-2)$ $f(n) = (-4) - 4 + 4 + 4$ $f(n) = 4 + 4 + 4 - 4$ $f(-2) = 10$	۳
$f(n) = \begin{cases} n - \sqrt{n+4} & n > 2 \\ 2n+3 & n \leq 2 \end{cases}$ $f(f(1)) + f(f(1)) =$ $4 + 2 = 6$	$f(0) = 0 - \sqrt{0+4} = -2$ $f(2) = 2(2)+3 = 7$ $f(1) = 2(1)+3 = 5$ $f(0) = 0 - \sqrt{0+4} = -2$	۴
$f(n) = an^2 - bn + 2$ $f(n-1) - f(n) = 9n + 2$ $a(n^2 - (n-1)^2) - b(n - (n-1)) + 2 - 2 = 9n + 2$ $a(2n-1) - b = 9n + 2$ $2an - a - b = 9n + 2$ $2a - b = 9n + 2$	$f(n-1) = a(n-1)^2 - b(n-1) + 2$ $f(n-1) = an^2 + a - 2an - bn + b + 2$ $an^2 + a - 2an - bn + b + 2 - an^2 - bn = 9n + 2$ $-2an - bn + a - b = 9n + 2$ $a - b = 9n + 2$	۵

$f(n) = q_1^r - r^{n+1}$ $\frac{r f(r) + f(-1)}{f'(r)}$	$f(r) = q - q + 1 = 1$ $f(-1) = 1 + r + 1 = \delta$ $f(r) = r - q + 1 = -1$ $\left. \frac{r+\delta}{1}, v \right\}$	8
$f(n) = \begin{cases} r^{n+1} & n \geq r \\ n^r & n < r \end{cases}$ $\frac{r f(r) - r f(-r)}{f(r) r^{n+1}}$	$f(r) = r(r) + 1 = v$ $f(r) = r(r) + 1 = 1^r$ $f(-r) = (-r)^r = r$ $\left. \frac{(r \times 1^r) - (r \times r)}{v}, \frac{r q - 1}{v}, \frac{r}{v}, \frac{r}{v} \right\}$	9
$f = \{(r, q), (r, r), (r, 1), (1, q)\}$ $\frac{f(f(r)) - f(f(r))}{f(1) - r}$	$\frac{q - q}{q - r} = \frac{0}{r} = 0$	10
$f(n) = \frac{n^r + f n + q}{n^r + f n + \delta}$ $f(f(\sqrt{r} - r)) =$ $f(r) = \frac{r + 1 + q}{r + 1 + \delta} = \frac{r}{1v}$	$f(\sqrt{r} - r) = \frac{(\sqrt{r} - r)^r + f \sqrt{r} - 1 + q + 1}{(\sqrt{r} - r)^r + f \sqrt{r} - 1 + \delta - r}$ $\frac{r + f - f \sqrt{r} + f \sqrt{r} + 1}{r + f - f \sqrt{r} + f \sqrt{r} - r} = \frac{1}{r} = r$	9
$f(n) = n^r + \frac{1}{n^r}$ $(f(\sqrt{n}))^r - f(n)$ $n^r + \frac{1}{n^{1+r}} - n^r - \frac{1}{n^r} = +r$	$f(\sqrt{n}) = \sqrt{n}^r + \frac{1}{\sqrt{n}^r} = n + \frac{1}{n} \quad n \geq 0$ $(n + \frac{1}{n})^r = n^r + \frac{1}{n^r} + r$	10