

	-۵	۰	۲	۵
$f(n)$	+	۰	-	۰
n	-	-	+	+
	-	+	-	+

$$\rightarrow [-5, 5]$$

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	-۳	۰	۲	۵
$f(n)$	+	۰	+	+
$-n$	+	۰	۰	۰
	+	+	+	+

$$\rightarrow (-3, 2) \cup (0, 2) \rightarrow \boxed{-2, 1}$$

۲

$$f(n) - 2f(2) = n^2 - 3n + 2$$

$$f(-2) = ?$$

$$f(2) - 2f(2) = 4 - 6 + 2 \Rightarrow f(2) = -2$$

۳

$$\Rightarrow f(n) = n^2 - 3n + 2 + 2f(2) - 4 \Rightarrow f(-2) = 1$$

$$f(f(5)) + f(f(1)) = ? = 9$$

$$5 - \sqrt{5 \times 5} = 2$$

$$f(1) = (1 \times 1) + 2 = 3 \quad f(2) = (2 \times 2) + 2 = 6$$

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$$f(n) = an^2 - bn + 2 \Rightarrow f(0) = 2$$

$$f(-1) - f(0) = 2 \Rightarrow f(-1) = 4$$

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$$f(-1) = 4 \text{ و } f(0) - f(1) = 8 = f(1) = -6 \Rightarrow$$

$$a - b + 2 = -6 \Rightarrow a - b = -8$$

$$\frac{r f(r) + f(-1)}{f(r)} = ?$$

$$\frac{(r \times 1) + 1}{(-1)^r \rightarrow 1} = \textcircled{r}$$

$$f(n) = n^r - r_{n+1}$$

$$f(r) = 9 - 9 + 1 = \textcircled{1}$$

$$f(-1) = 1 + r + 1 = \textcircled{2}$$

$$f(r) = r - 4 + 1 = \textcircled{-1}$$

$$\frac{r^9 f(r) - r f(-r)}{f(r)} = \textcircled{\frac{r}{r}}$$

$$f(n) = \begin{cases} r_{n+1} & n \geq r \\ n^r & n < r \end{cases}$$

$$f(r) = (r \times r) + 1 = \textcircled{1r}$$

$$f(-r) = (-r)^r = \textcircled{r}$$

$$f(r) = (r \times r) + 1 = \textcircled{r}$$

$$\frac{f(f(r)) - f(f(r))}{f(1) - r}$$

$$f = \left\{ (r, 4), (r, r), (r, 1), (1, r) \right\}$$

$$= \frac{r - r}{f(1) - r} = \textcircled{0}$$

$$F(F(\sqrt{r} - r)) = ?$$

$$f(n) = \frac{n^r + f_{n+9}}{n^r + f_{n+0}}$$

$$\frac{r - r\sqrt{r} + (r\sqrt{r} - 1) + 9}{r - r\sqrt{r} + (r\sqrt{r} - 1) + 0} = \frac{8}{8} = \textcircled{1}$$

$$\frac{r^r + (r \times r) + 9}{r^r + (r \times r) + 0} = \textcircled{\frac{r}{1r}} = \textcircled{\frac{r}{1r}}$$

$$\underbrace{(f(\sqrt{n}))^r}_{n + \frac{1}{n}} - f(n)$$

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

$$n^r + \frac{1}{n^r} + r - n^r - \frac{1}{n^r} = \textcircled{r}$$