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$y = f(n)$
 $y = \sqrt{n} f(n)$
 $f(n) = 0, n = -5, n = 2$
 $f(n) < 0, -5 \leq n < 2$

$f(n) > 0$
 $n = -5$
 $n = 2$
 $f_{\min} = [-4, 5]$
 $D_f = [-5, 0] \cup [2, 5]$

$n \neq 0$
 $n = -2, n = 0, n = 2$
 $f(-2) = 0$
 $f(0) = 0$
 $f(2) = 0$
 $D_f = (-2, 0) \cup (0, 2)$

Table:

n	$f(n)$	y	
-	+	-	$[-5, -5]$
+	-	-	$[-5, 0]$
-	-	+	$[0, 2]$
+	+	+	$[2, 5]$

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$y = \sqrt{\frac{-n}{f(n)}} \cdot \frac{-n}{f(n)} > 0$
 $f(n) < 0 \rightarrow -2 \leq -1; 1 \rightarrow -$
 $f(n) > 0 \rightarrow 0 \leq -2; 1 \rightarrow +$
 $f(n) < 0 \rightarrow 2 \leq 0; 1 \rightarrow -$
 $f(n) > 0 \rightarrow 0 \leq 2; 1 \rightarrow +$

$f(n) \neq 0$
 $n = -2, n = 0, n = 2$
 $f(-2) = 0$
 $f(0) = 0$
 $f(2) = 0$
 $D_f = (-2, 0) \cup (0, 2)$

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

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$f(n) - 2f(r) = n^2 - 2n + 5$
 $f(-r) = ?$
 $f(r) - 2f(r) = 5 - 4 + 5$
 $-f(r) = r \rightarrow f(r) = -r$

$f(-r) = 1$

$f(1) \rightarrow n = 1$
 $1 \times 1 + 3 = 5$
 $f(5) \rightarrow n = 5$
 $5 - \sqrt{5+5} = 5 - \sqrt{10} = 5 - 3 = 2$
 $f(r) = n = 2$
 $2 \times 2 + 3 = 7$

$f(1) = 5$
 $f(5) = 2$
 $f(r) = 7$

$5 + 2 = 7$

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$f(n) = an^2 - bn + r$
 $f(n-1) = a(n-1)^2 - b(n-1) + r$
 $an^2 - 2an + a - bn + b + r - an^2 - bn + r = 4n + r$
 $-2an + a + b - bn + b + r = 4n + r$
 $-2an + a + b - bn + b = 4n$
 $a + b = -4$
 $-2a - b = 4$
 $-2a + b = -4$
 $b = -1$

$f(n-1) - f(n) = 4n + r$
 $a - b = ?$

$a - b = 7$

$a - b = 7$

$-2a = 4 \rightarrow a = -2$
 $a + b = -4 \rightarrow b = -2$
 $a - b = -2 - (-2) = 0$

$$\frac{r f(r) - f(-1)}{f'(r)} = \frac{r + \Delta}{1} = v$$

$$f(r) = 1 \rightarrow r f(r) = r$$

$$f(-1) = \Delta$$

① ✓

$$r_n = r$$

$$(r)^r - r \times r + 1 = 1$$

$$f(-1) \rightarrow n = -1$$

$$(-1)^r - r(-1) + 1 = \Delta$$

$$\frac{r f(r) - r f(-r)}{f'(r)} = \frac{r!}{v} = \frac{r!}{v}$$

1, 0

$$n = r$$

$$r \times r + 1 = 1^r$$

$$n = -r \rightarrow n < r$$

$$(-r)^r = \Delta$$

$$f(r) \Rightarrow r \times r + 1 = v$$

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

① ✓

$$(n+r)^r = n^r + \varepsilon n + \varepsilon$$

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

①

$$\frac{r + \Delta}{r + 1} = \frac{1}{\varepsilon} = r$$

$$\frac{(r)^r + \Delta}{(r)^r + 1} \rightarrow \frac{r!}{1v}$$

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

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

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

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

① ✓

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

$$n^r + \frac{1}{n^r} + r$$

$$\frac{r f(r) - f(-1)}{f'(r)} = \frac{r + \Delta}{1} = v$$

$$f(r) = 1 \rightarrow f(-1) = 1$$

$$f(-1) = \Delta$$

$$n = r$$

$$(-1)^r - r \times r + 1 = 1$$

$$(-1)^r - r(-1) + 1 = \Delta$$

$$\frac{r f(r) - r f(-r)}{f'(r)} = \frac{r \Delta}{v} = \Delta$$

$$n = r$$

$$r \times r + 1 = 1^r$$

$$n = -r \rightarrow n < r$$

$$(-r)^r = r$$

$$f(r) \Rightarrow r \times r + 1 = v$$

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

$$(n+r)^r = n^r + \varepsilon n + \varepsilon$$

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

$$\frac{r + \Delta}{r + 1} = \frac{\Delta}{\varepsilon} = r$$

$$\frac{(r)^r + \Delta}{(r)^r + 1} \rightarrow \frac{r}{1v}$$

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

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

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

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

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

$$n^r + \frac{1}{n^r} + r$$