

$y = \frac{n+r}{r n^2 + 9n + 10n + r} \quad (-)$ $\Rightarrow \frac{n+c}{(n+1)(r n^2 + 4n + c)} = \frac{(n+c)}{(n+1)(r n + 1)(n+1^r)} \quad \begin{matrix} -1 & -\frac{1}{r} & -r \end{matrix}$ $R_f: \mathbb{R} - \left\{ -1, -\frac{1}{r}, -c \right\}$	$y = \frac{n+r}{r n^2 + 4n + c - 1n + r} = \frac{n+r}{n+c} \quad (-)$ $\frac{n+c}{(n-1)(r n^2 + 4n - c)} = \frac{(n-1)(r n - 1)(n+c)}{(n-1)(r n - 1)(n+c)} \quad \begin{matrix} +1 & +\frac{1}{r} & -r \end{matrix}$ $R_f: \mathbb{R} - \left\{ +1, +\frac{1}{r}, -c \right\}$
$y = \sqrt{\frac{(n+r)^2 - r}{(n-1)(n^2 - n + 1)}} \quad (-)$ $\frac{-r}{+1 \quad -\frac{1}{r} \quad +}$ $R_f: (-\infty, -r] \cup (1, +\infty)$	$y = \frac{n+r}{n^2 - r n^2 + r n - 1} \quad (-)$ $\Rightarrow n^2 - 1 + r n^2 + r n \Rightarrow (n-1)(n^2 + 1 + n) - r n$ $(n-1) \Rightarrow \frac{(n-1)(n^2 + 1 - n)}{+1 \quad -\frac{1}{r} \quad +}$ $R_f: \mathbb{R} - \{1\}$
$y = \frac{r}{n^2 - \delta(n-1) - r n + \delta} \quad \begin{matrix} \text{if } n \nmid n^2 - \delta(n-1) - r n + \delta \Rightarrow n^2 - \delta n + 10 + \frac{(n-1)(n-\delta)}{r} \\ \text{if } n \mid n^2 - \delta(n-1) - r n + \delta \Rightarrow n^2 + r n + \frac{n(n+c)}{-c} \end{matrix}$ $R_f: \mathbb{R} - \left\{ \frac{r}{c}, \frac{r}{10}, 0 \right\}$	
$[n]^r - r[n] - c \neq 0 \quad (-)$ $\frac{([n] - c)([n] + 1)}{[n] + r} \quad [n] - 1$ $\Downarrow \quad \Downarrow$ $n \neq [9] \quad n \neq [-1, 0]$ $R_f: \mathbb{R} - \{9, 0, -1\}$	$[n] \leq 0 \quad [n] \geq r \quad (-)$ $-n \geq c \quad n \leq -r$ $R_f: \mathbb{R} - \{c, -r\}$
$y = \sqrt{[n - \frac{1}{c}] + [\frac{1}{c} - n]} \quad (-)$ $[n - \frac{1}{c}] + [\frac{1}{c} - n] \geq 0 \Rightarrow [a] + [-a] \geq 0$ $\text{if } a \in \mathbb{Z} \Rightarrow \cdot \Rightarrow n - \frac{1}{c} \in \mathbb{Z} \Rightarrow n \in \mathbb{Z} + \frac{1}{c}$ $\text{if } a \in \mathbb{Z} \Rightarrow -1 \quad R_f: \{n \mid n = k + \frac{1}{c}, k \in \mathbb{Z}\}$	$y = \sqrt{[n - \frac{1}{c}] + [n + \frac{r}{c}]} \quad (-)$ $\Rightarrow [n - \frac{1}{c}] + [n + \frac{r}{c}] \geq 0$ $\Rightarrow r[n + \frac{r}{c}] \geq 1 \Rightarrow [n + \frac{r}{c}] \geq \frac{1}{r}$ $n + \frac{r}{c} \geq 1 \quad n \geq \frac{1}{c} \Rightarrow [n, +\infty)$

