

$y = \sqrt{\log \frac{x-1}{x}}$ $D_f = \left(\frac{x}{x-1}, +\infty\right) - \{1\}$ $\neg) I(u) = \log \frac{1}{1+\sqrt{1-u} - u }$ $y = (u) \sqrt{1+\sqrt{1-u} - u }$	$x-1 > 0$ $x > 1, x \neq 1$ $x > \frac{1}{x}$ $\log \frac{x-1}{x} > 0$ $x-1 > x$ $x > 1$ $x > \frac{1}{x}$ $1 < x-1 \leq x^0$ $x \leq \frac{x}{x}$ $D_f = \left(\frac{1}{x}, \frac{x}{x}\right) \cup (1, +\infty)$ $\sqrt{1-u} < 1 \rightarrow u < 1 - \sqrt{1-u}$	1, 10 6
$y = \sqrt{\frac{rx+1+ax+ab}{n+b}} = \sqrt{\frac{(r+a)x + a+b+r}{n+b}}$ $r+a=0$ $a=-r$ $\frac{-rb+r}{n+b} > 0$ $\frac{-rb+r}{n+b} > 0$ $b=-r$	x $D_f = (a, a)$ $\frac{-rb+r}{n+b}$ $\frac{-rb+r}{n+b}$ $\frac{-rb+r}{n+b}$ $\frac{-rb+r}{n+b}$	7
$I(x) = \begin{cases} x-1 & x \geq 0 \\ x+c & 0 < x \end{cases}$ $x \geq 0 \rightarrow y = \sqrt{x}$ $x < 0 \rightarrow y = \sqrt{x+c}$ $y = \frac{f(x)}{g(x)} = \frac{f}{g}$	$D_f = \left[-\frac{x}{x}, +\infty\right)$ $x \geq 0$ $x < 0$	2 8
$y = \frac{r^2 x^2 + r^2 y x^2 + 11x + c}{(x^2 + (x+1)^2)^2} = \frac{r^2 (x+1)^2}{(x+1)^2} = \frac{r}{x+1}$ $x+1 \neq 0 \Rightarrow x \neq -1$ $D_f = \mathbb{R} - \left\{-\frac{1}{r}\right\}$	$\frac{r^2 (x+1)^2}{(x+1)^2} = \frac{r}{x+1}$ $\frac{r}{x+1}$	9
$y = \sqrt{1 - \log(xn-a)} \Rightarrow 1 - \log(xn-a) \geq 0$ $\log(xn-a)$ $xn-a > 0$ $0 \leq xn-a \leq 1 \Rightarrow a \leq xn \leq 1+a \Rightarrow \frac{a}{x} \leq n \leq \frac{1+a}{x}$	$1 \geq \log(xn-a)$ $\frac{1+a}{x} - \frac{a}{x} = \frac{1}{x}$ $c-b$	10