

$$y = \frac{r}{r_k} = r_k - 1 \rightarrow y^r = r_k^r + r_k - 1 \rightarrow y^r = r_k^r + r_k - 1 \rightarrow y^r = r_k^r + r_k - 1 \rightarrow y^r = r_k^r + r_k - 1$$

$$f(x) = \begin{cases} r_k^r - b & |u-1| \geq r \\ a + r_k & |u-1| < r \end{cases} \rightarrow f(x) = \begin{cases} r_k^r - b & |u-1| \geq r \\ a + r_k & |u-1| < r \end{cases}$$

$$f(x) = \begin{cases} r_k^r - b & |u-1| \geq r \\ a + r_k & |u-1| < r \end{cases} \rightarrow f(x) = \begin{cases} r_k^r - b & |u-1| \geq r \\ a + r_k & |u-1| < r \end{cases}$$

$$r_b = -r_b^r \rightarrow r_b^r + r_b = 0 \rightarrow b^r + b = 0 \rightarrow b(b+1) = 0 \rightarrow b = 0 \text{ or } b = -1$$

$$y = \frac{r}{\sqrt{ax^2 + bx + c}} \rightarrow y = \frac{r}{\sqrt{ax^2 + bx + c}} \rightarrow y = \frac{r}{\sqrt{ax^2 + bx + c}}$$

$$y = \frac{r}{\sqrt{ax^2 + bx + c}} \rightarrow y = \frac{r}{\sqrt{ax^2 + bx + c}} \rightarrow y = \frac{r}{\sqrt{ax^2 + bx + c}}$$

$$y = \sqrt{k^r - u} = \sqrt{k(k+1)(k-1)} \rightarrow y = \sqrt{k(k+1)(k-1)}$$

$$y = \frac{1}{\sqrt{|x|-1}} \rightarrow |x|-1 > 0 \rightarrow |x| > 1 \rightarrow x > 1 \text{ or } x < -1$$

$$y = \sqrt{\frac{1}{|x| - [u]}} \rightarrow |x| \neq [u] \rightarrow D_f = \mathbb{R} - [z^+ u\{0\}]$$

$$\sqrt{x} + \sqrt{y} = 9 \rightarrow \sqrt{y} = 9 - \sqrt{x} \rightarrow x \geq 0 \rightarrow D_f = [0, +\infty)$$

$$y = \frac{1}{\sqrt{[x - \frac{1}{r}] + [x + \frac{1}{r}]}} \xrightarrow{\frac{1}{r} = \frac{1}{r}} r[x - \frac{1}{r}] + r > 0 \rightarrow [x - \frac{1}{r}] > -r$$

$$[x - \frac{1}{r}] > -1 \rightarrow x - \frac{1}{r} \geq 0 \rightarrow x \geq \frac{1}{r} \quad \boxed{x \geq \frac{1}{r}}$$

$$y = \sqrt{1 - \log x - a} \rightarrow x - a > 0 \rightarrow x > \frac{a}{r} \text{ (I)} \rightarrow b$$

$$1 - \log x - a \geq 0 \rightarrow \log x - a \leq 1 \rightarrow x - a \leq 1 \rightarrow x \leq 1 + a \rightarrow x \leq \frac{1+a}{r} = \frac{a}{r} + \frac{1}{r}$$

$$C - b = \frac{a}{r} + \frac{1}{r} - \frac{a}{r} = \boxed{\frac{1}{r}}$$

ادامه سوال بعد

$$ج. \frac{x+y}{r} \sqrt{xy} \rightarrow x+y, r\sqrt{xy} \rightarrow x+y - r\sqrt{xy} \rightarrow (\sqrt{x} - \sqrt{y})^2$$

$$\rightarrow \sqrt{x} - \sqrt{y} = 0 \rightarrow \sqrt{x} = \sqrt{y} \xrightarrow{r\sqrt{xy}} x, y \rightarrow \text{مساوی}$$

$$x^r y^r + x^r - y^r = 0 \rightarrow x(y^r + 1), y^r + y \rightarrow x, \frac{y^r + 1}{y^r + 1} \rightarrow \frac{y^r + 1}{y^r + 1} \rightarrow \frac{y^r + 1}{y^r + 1}$$

$$y^r y^r + y^r y^r + y^r y^r + y^r y^r = y^r y^r + y^r y^r + y^r y^r + y^r y^r \rightarrow y^r y^r + y^r y^r + y^r y^r + y^r y^r \rightarrow y^r y^r + y^r y^r + y^r y^r + y^r y^r$$