

$$f(x) = \sqrt{x+\sqrt{x-r}} \sqrt{x-r+\sqrt{x-r}} < \sqrt{(\sqrt{x-r}+r)^2} = \sqrt{x-r}+r$$

+ 0,1222

$$g(x) = \sqrt{x-\sqrt{x-r}} \sqrt{x-r-\sqrt{x-r}} < \sqrt{(\sqrt{x-r}-r)^2} = |\sqrt{x-r}-r| < \sqrt{x-r}-r$$

+ 0,1222

$$f(x) - g(x) < r\sqrt{x-r} - r + r \quad \begin{matrix} a < 1 \\ b < r \\ c < -r \end{matrix} \quad \frac{a+b}{c} < \frac{r}{-r} < \boxed{-\frac{1}{r}}$$

$$\frac{f}{f} = \left\{ \left(r, -\frac{1}{r} \right) \right\} \quad \text{---} \quad \left(\frac{r}{r}, \frac{r}{r} \right)$$

$$\boxed{\left\{ \left(r, -\frac{1}{r} \right), \left(0, 4 \right) \right\}}$$

$$\frac{r}{r-r+r} = -r \quad \frac{4r}{1-r+r} = 0$$

$$\frac{r+r}{r-r+r} = 0 \quad \frac{0+r}{0-r+r} = \frac{r}{r}$$

$$\omega = \left\{ \left(\frac{1}{r}, r \right), \left(\frac{r}{r}, -1 \right), \left(r, r \right), \left(-\frac{1}{r}, 4 \right) \right\}$$

$$\begin{matrix} r \geq 1 & r \geq r & r < r & r \geq 1 \\ x < \frac{1}{r} & x < \frac{r}{r} & x < r & x < -\frac{1}{r} \end{matrix}$$

$$\rightarrow \left\{ \left(1, r \right), \left(-1, r \right), \left(\sqrt{r}, -1 \right), \left(-\sqrt{r}, -1 \right), \left(r, r \right), \left(-r, r \right) \right\}$$

$$\begin{matrix} x \geq 1 & x \geq r & x < r & x \geq 1 \\ x < \pm 1 & x < \pm \sqrt{r} & x < \pm r & x < -1 \end{matrix}$$

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

$$\rightarrow \left\{ \left(1, \frac{r}{r} \right), \left(\frac{r}{r}, -1 \right) \right\}$$

$$h = \left\{ \left(r, 4 \right), \left(-r, 4 \right), \left(r, 4 \right) \right\}$$

$$\sqrt{rx} - x \geq 0 \quad \begin{matrix} rx \geq 0 \\ \boxed{x \geq 0} \end{matrix}$$

$$\sqrt{rx} - x \geq 0$$

$$\sqrt{rx} \geq x$$

$$rx \geq x^2$$

$$x^2 - rx \leq 0$$

$$x(x-r) \leq 0$$

$$\frac{a}{+b} - \frac{r}{b+}$$

$$\boxed{0 \leq x \leq r} \quad \boxed{x \neq r}$$

$$[x] + [-x] + 1 \neq 0$$

$$[x] + [-x] \neq -1 \rightarrow x \in \mathbb{Z}$$

$$\frac{D_f}{g+1} = \{ 0, 1, r \}$$

$$\omega) x^2 = x^2 - 1^2 x^2 + 1^2 x \rightarrow x^2 - 1 \leq x^2 - 1^2 x^2 + 1^2 x - 1$$

-v

$$x^2 - 1 \leq (x-1)^2 \quad x-1 \leq \sqrt{x-1} \quad x \leq \sqrt{x-1} + 1 \quad R_f \subset \mathbb{R}$$

$$\omega) x^2 - 1^2 x^2 + 1^2 x = 1$$

$$x^2 - 1^2 x^2 - 1 \leq 0$$

$$\Delta \geq 0$$

$$b^2 - 4ac \geq 0$$

$$f_1' + f_2' \geq 0$$

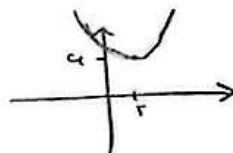
$$f_1'(x+1) \geq 0$$

$$\frac{-1}{+d} \quad \frac{0}{-b+}$$

$$R_f \subset (-\infty, -1] \cup [0, +\infty)$$

$$\omega) \quad \frac{-b}{10} \leq \frac{f}{v} \leq 2r \quad f-1+10 \leq 4$$

$$R_f \subset [4, +\infty)$$



$$\omega) \quad \frac{-9}{-r} \leq 1^2$$

$$-9 + 1 \leq 1^2 \leq 1^2$$

$$R_f \subset (-\infty, 1^2]$$



$$\omega) \quad \frac{f}{v} \leq 1 \quad f-1-1^2 \leq -1 \quad [-1, +\infty) \quad \frac{1}{v} \leq [0, +\infty)$$

$$\omega) \quad -x^2 \leq 9x \rightarrow \frac{-9}{-r} \leq 1^2 \quad -9 + 1 \leq 1^2 \leq 1^2 \quad (-\infty, 1^2] \xrightarrow{f} [0, 1^2]$$

$$\omega) \quad R_f \subset \mathbb{R}$$

$$\omega) \quad R_f \subset \mathbb{R}$$

$$\omega) \quad R_f \subset [0, +\infty)$$

$$\omega) \quad f \subset [0, +\infty)$$

-9

$$\omega) \quad R_f \subset \mathbb{R} - \{r\}$$

$$\omega) \quad R_f \subset \mathbb{R} - \{r\}$$

-10

$$f(x) = \sqrt{ax - x^2 + f} \leq \sqrt{-(x-f)(x-1)} \geq 0 \quad \frac{1}{x+1} \quad [1, f] \subset R_f$$

$$h(x) = \frac{f(x)}{g(x)}$$

$$g(x) \neq 0 \quad \checkmark \rightarrow P_g \subset \{1, r, f, d\}$$

$$P_h \subset \{1, r, f\}$$

$$h(x) \subset \{(1, 0), (r, \frac{\sqrt{r}}{r}), (f, 0)\}$$

$$10 - f - f = r$$

$$r - 14 - f = 1$$