

$$x = \sqrt{4x-a} + \sqrt{b-rx} \quad 4x-a \geq 0 \quad x \geq \frac{a}{4} \quad \vee$$

$$b-rx \geq 0 \quad x \leq \frac{b}{r} \quad \rightarrow x \geq r$$

$$r = \frac{a}{4} = \frac{b}{r} \quad \boxed{\frac{b}{a} = \frac{r}{4} = \frac{1}{r}}$$

$$\text{و) } x \in \begin{cases} x^2 - x - 4 \\ x^2 - 13x^2 - 34 \end{cases} \quad x^2 \leq 4 \quad x \geq \pm 2$$

$$x^2 + x^2 - 13x^2 - 34 = 0 \quad (x-5)(x-9) = 0 \quad x^2 \geq 9 \quad x \geq \pm 3$$

$$\frac{(x-r)(x+r)}{(x-r)(x+r)(x-r)(x+r)} > 0 \quad + \frac{-r}{0} - \frac{x}{0} - \frac{r}{0} + \frac{x}{0} +$$

$$\boxed{D_f = (-\infty, -r) \cup (r, +\infty) - \{r\}}$$

$$\begin{array}{l} \rightarrow x \in \begin{cases} x^2 - rx^2 - dx + 4 \\ x^2 + rx^2 - dx - 4 \end{cases} \quad \begin{array}{l} x^2 - rx^2 - dx + 4 \\ -x^2 + x^2 \end{array} \quad \begin{array}{l} x-1 \\ x^2 - x - 4 \end{array} \\ \begin{array}{l} x^2 + rx^2 - dx - 4 \\ -x^2 - x^2 \end{array} \quad \begin{array}{l} x+1 \\ x^2 + x - 4 \end{array} \quad \begin{array}{l} -x^2 - dx + 4 \\ + x^2 - x \\ -4x + 4 \\ + 4x - 4 \\ 0 \end{array} \\ \begin{array}{l} x^2 - dx - 4 \\ -x^2 - x \\ -4x - 4 \\ + 4x + 4 \\ 0 \end{array} \quad \begin{array}{l} (x+r)(x-r) \\ (x+1)(x-1) \end{array} \end{array}$$

$$(x-1)(x-r)(x+r) > 0$$

$$(x+1)(x+r)(x-r)$$

$$+ \frac{-r}{0} - \frac{r}{0} - \frac{1}{0} - \frac{1}{0} + \frac{r}{0} - \frac{r}{0} +$$

$$\boxed{D_f = (-\infty, -r) \cup [-r, -1) \cup [1, r) \cup [r, +\infty)}$$

$$\text{و) } x \in \sqrt{r[x]-f} \quad r[x]-f \geq 0 \quad [x] \geq r \quad \boxed{D_f = [r, +\infty)}$$

$$\rightarrow x \in \sqrt{r[x]-d} \quad r[x]-d \geq 0 \quad [x] \geq \frac{d}{r} \quad \boxed{D_f = [r, +\infty)}$$

$$\text{و) } x \in \sqrt{\frac{x+1}{1-x-r}} + \sqrt{\frac{4-x}{x^2+rx+f}} \quad \frac{x+1}{1-x-r} \geq 0 \quad \frac{-1}{0} + \frac{x}{0} \quad [-1, +\infty) - \{r\}$$

$$+ 0, \text{ and } -\Delta \leq 0 \quad \frac{4-x}{x^2+rx+f} \geq 0 \quad \frac{4}{0} - \frac{x}{0} \quad x \leq 4 \quad \boxed{D_f = [-1, 4] - \{r\}}$$

$$\rightarrow x \in \sqrt{[x]-f} + \sqrt{r[x]} \quad [x]-f \geq 0 \quad [x] \geq f \quad x \geq f \quad \boxed{D_f = \emptyset}$$

$$r[x] \geq 0 \quad [x] \leq r \quad x \leq r$$