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.. B موع / حساب ..

$$x = \alpha \rightarrow \alpha^r + r\alpha = \alpha^r - r \rightarrow \boxed{\alpha = -r}$$

$$f(r) = r \rightarrow \frac{r + \alpha}{r - b} = r \rightarrow r + \alpha = r^2 - rb \rightarrow \alpha = r + r^2 - rb = 11$$

$$g(r) = r \rightarrow r + b = r \rightarrow \boxed{b = -1} \quad f(1) = \frac{1 + 11}{1 + 1} = \frac{12}{2} = 6$$

$$\begin{aligned} x = 1 &\rightarrow r - a + b = 0 \rightarrow b - a = -r \\ x = r &\rightarrow r^2 + ra + b = 0 \rightarrow b + ra = -r^2 \\ \Delta a = -r_0 &\rightarrow \boxed{a = -r} \quad \boxed{b = -1} \end{aligned} \Rightarrow f(x) = \frac{rx + 1}{rx^2 - rx - 1}$$

$$\Rightarrow f(1) = \frac{r + 1}{r - r - 1} = \frac{r + 1}{-1}$$

$$f(x) = \frac{x^r - \sqrt{r}}{rx^r + ax + b} \quad f(x+1) = x^r + r\alpha + 1 = -\{x^r - 1\} - \{r\}$$

$$a + b = -1 - r = -12$$

$$(x \neq 1)^r = x^r + 1 - rx \quad m^r - r < 0 \rightarrow -r < m < r$$

$$\frac{m^r - r}{r} < 0$$

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$$f - \frac{1}{x^r} > 0 \rightsquigarrow \left(r - \frac{1}{x} \right) \left(r + \frac{1}{x} \right) = 0 \rightarrow \frac{\frac{1}{-r}}{+} \frac{\frac{1}{r}}{-} \rightarrow D_f = (-\infty, -\frac{1}{r}] \cup [\frac{1}{r}, +\infty)$$

$$mx^r + rmx + 1 > 0 \rightarrow \begin{cases} \text{I: } m > 0 & D_f = (-\frac{1}{r}, \frac{1}{r}] \cup [1, +\infty) \\ \text{II: } m < 0 & rmx^r - rmx < 0 \rightarrow rmx(m-1) < 0 \end{cases}$$

$$f\left(\frac{1}{r}\right) = r+k \quad g\left(\frac{1}{r}\right) = r \rightarrow r+k = r \rightarrow \boxed{k=0}$$

$$rx - 1 \neq 0 \rightarrow x \neq \frac{1}{r} = a \rightarrow a+k = \frac{1}{r}$$

$$f(1) = g(1) \rightarrow \frac{r-f}{r+r} = r+b \rightarrow \frac{a}{a} = r+b \rightarrow 1 = r+b \rightarrow \boxed{b=-r}$$

$$f\left(-\frac{r}{r}\right) = g\left(-\frac{r}{r}\right) \rightarrow -ra+r = -f \rightarrow -ra = -f \rightarrow \boxed{a=r} \Rightarrow a-b = \dots$$

$$f(r) = g(r) \rightarrow ra^r + ra = f \rightarrow a^r + a - r = 0 \rightarrow (a+r)(a-1) = 0 \rightarrow \begin{cases} a = -r \\ a = 1 \end{cases}$$

~~if $a=r$ then $ra^r + ra = f \rightarrow a^r + a - r = 0 \rightarrow a=1$~~

if $a=r$ then $ra^r + ra = f \rightarrow a^r + a - r = 0 \rightarrow \boxed{a=1}$