

$$\therefore r f(\omega) = f(-r) + a \Rightarrow f(x) = \begin{cases} (a+1)(x+r) ; x \geq 1 \\ r a + r x ; x \leq 1 \end{cases} \Rightarrow f(\omega) = v a + v \quad \left. \begin{array}{l} \\ \Rightarrow f(-r) = r a - r \end{array} \right\} r(v a + v) = r a - r + a$$

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

$$\Rightarrow \sqrt{2-\sqrt{2}} + \sqrt{2+\sqrt{2}} + 2\sqrt{2+\sqrt{2}} + \sqrt{2-\sqrt{2}} + 2 \Rightarrow$$

$$A = \sqrt{2-\sqrt{2}} + \sqrt{2+\sqrt{2}} \Rightarrow A^2 = 2-\sqrt{2} + 2\sqrt{2} + \sqrt{2} + 2$$

$$= 4 + \sqrt{2} = \frac{4(\sqrt{2}-1)(\sqrt{2}+1)}{(\sqrt{2}-1)(\sqrt{2}+1)} = \frac{4(\sqrt{2}-1)(\sqrt{2}+1)}{2-1} = 4(\sqrt{2}-1)(\sqrt{2}+1)$$

$$\begin{aligned} & \Rightarrow f(x) - f(-x) = 5x^5 - (-x) \Rightarrow -f(-x) = +5x^5 \Rightarrow f(x) + f(-x) = 0 \Rightarrow f(x) = -f(-x) \\ & \Rightarrow f(x) = 5x^5 - x \Rightarrow f(x) = \boxed{\frac{5x^5 - x}{1}} \end{aligned}$$

$$\begin{aligned} \xrightarrow{x=0} & r f(0) - (0) f(r) \neq r_{m-1} \\ \xrightarrow{x=-r} & (0) f(-r) + r f(0) = 1\omega + \omega m \end{aligned} \quad \left. \begin{aligned} & r f(0) = 0_{m-r} \\ & r f(0) = 1\omega + \omega m \end{aligned} \right\} \begin{aligned} & q_{m-r} = 1\omega + \omega m \Rightarrow -r \\ & r_{m-1} = 1\omega \Rightarrow \boxed{r_m = 1\omega} \Rightarrow \end{aligned}$$

$$f(x) + f\left(\frac{1}{x}\right) = \frac{x^2 - 15x + 2}{x} \Rightarrow f(-1) + f(-1) = \frac{2 + 15 + 2}{-1} \Rightarrow 2f(-1) = -19$$

$$D_f = D_g = x < 1 \Rightarrow \boxed{\sqrt{1-x}} \Rightarrow \underbrace{(x-1)\sqrt{1-x} = -(1-x)\sqrt{1-x} \Rightarrow -\sqrt{1-x)^3}}_{f(x) = g(x)}$$

$$\boxed{\sqrt{x}} \Downarrow \boxed{\sqrt{x^n}}$$

ا) $\left(\frac{f+g}{f-g}\right)(1) \Rightarrow \frac{2+1}{2-1} = \boxed{3}$

ب) $\left(\frac{f+g}{f-g}\right)(2) \Rightarrow \frac{2+2}{2-2} = \frac{4}{0} \Rightarrow$ مخرج صفر است
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ج) $f(0)g(-1) \Rightarrow 0 \times 1 = \boxed{0}$

$g(x) = f(2x-1)$

$2x-1$	x	$g(x)$
2	1	1
-1	0	3
1	1	3
-2	-1	2
2	1	-1

$\Rightarrow g(x) = \{(1, 1), (0, 3), (\frac{1}{2}, 0), (-\frac{1}{2}, 2), (\frac{3}{2}, -1)\}$

$h(x) = f(1/x) \Rightarrow x > 0$

$1/x$	x	$h(x)$
1	1	1
2	1/2	1
1/2	2	2
-1	-1	3
-2	-1/2	-1
1/3	3	3

$\Rightarrow h(x) = \{(1, 1), (1/2, 1), (2, 2), (-1, 3), (-1/2, -1), (3, 3)\}$