

$$x f(x) \geq 0 \Rightarrow \left\{ \begin{array}{l} x = 0 \rightarrow \{0\} \\ f(x) = 0 \rightarrow -\delta, \gamma, \delta \end{array} \right\} \xrightarrow{\text{E}} \begin{array}{ccccccc} & -\delta & 0 & \gamma & \delta \\ & | & | & | & | \\ & - & + & - & + \end{array} \Rightarrow [-\delta, 0] \cup [\gamma, \delta] \quad |$$

$$\frac{-x}{f(x)} \underset{f(x)}{>_0} \Rightarrow \left\{ \begin{array}{l} -x \rightarrow 0 \Rightarrow \left\{ 0, \frac{1}{2} \right\} \\ f(x) \rightarrow 0 \Rightarrow]r_0, r_1[\end{array} \right\} \Rightarrow \frac{-r_0^*}{-\frac{1}{\delta} + \frac{1}{\delta} + \frac{1}{\delta} - \frac{1}{\delta} + \frac{\delta}{\delta}} \Rightarrow (-r_0) \cup (0, r) \cup (\delta, +\infty)$$

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$$\Rightarrow x=2 \Rightarrow -f(2) = 9 - 4 + 9 = -f(2) = 2 \Rightarrow f(2) = -2$$

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

$$f(\delta) \Rightarrow \delta > r \Rightarrow \delta - \sqrt{\delta^2 - r^2} \Rightarrow r \xrightarrow{f(r)} f(r) = r + r = v \Rightarrow f(f(\delta)) = v$$

$$f(1) \Rightarrow 1 < r \Rightarrow \delta \xrightarrow{r+r} \delta \cdot \sqrt{\frac{\delta+r}{r}} \Rightarrow r \rightarrow f(f(1)) = r$$

$$V + r = 9$$

$$\Rightarrow a \cancel{x}^r + a \cdot \cancel{r} a x - \cancel{b} n + \cancel{b} \cancel{x}^r - \cancel{a} \cancel{x}^r \cancel{b} n \cancel{x}^r = \epsilon_n + r \Rightarrow a + b - r a n = \epsilon_n + r \Rightarrow -r a n = \epsilon_n$$

$$\Rightarrow -r_2 = 9 \Rightarrow a = -9 \rightarrow a + b = r \Rightarrow -9 + b = r \Rightarrow b = 8$$

$$a-b \Rightarrow -r-d = -1$$

$$\left. \begin{aligned} f(r) &= 9 \cdot 9 + 1 = 82 \\ f(-1) &= 1 + 3 + 1 = 5 \\ f(r) &= 9 - 9 + 1 = 1 \end{aligned} \right\} \Rightarrow \frac{f(r) + f(-1)}{f(r)} = \frac{82}{1} = \boxed{82}$$

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$$\left. \begin{aligned} f(r) &= 11r + 1 = 12 \\ f(-r) &= r \\ f(r) &= 9 + 1 = 10 \end{aligned} \right\} \Rightarrow \frac{f(r) - f(-r)}{f(r)} = \frac{12}{10} = \frac{6}{5}$$

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$$\left. \begin{aligned} f(f(r)) &\Rightarrow f(r) = 1 \Rightarrow f(f(r)) = f(1) = 9 \\ f(f(r)) &\Rightarrow f(r) = r \Rightarrow f(f(r)) = f(r) = 9 \\ f(1) &= 9 \end{aligned} \right\} \Rightarrow \frac{f(f(r)) - f(f(r))}{f(1) - r} = \frac{0}{9} = 0$$

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$$f(\sqrt{r}) = \frac{r + f(\sqrt{r}) + r\sqrt{r} - 1 + 9}{r + f(\sqrt{r}) + r\sqrt{r} - 1 + 8} = \frac{1}{r} = r$$

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$$f(r) = \frac{r + 1 + 9}{r + 1 + 8} = \frac{r + 1}{r + 9}$$

$$\left. \begin{aligned} f(\sqrt{x}) &= 21 + \frac{1}{x} \Rightarrow (f(\sqrt{x}))^r = \left(21 + \frac{1}{x}\right)^r = x^r + \frac{1}{x^r} + r \\ f(x) &= x^r + \frac{1}{x^r} \end{aligned} \right\} \Rightarrow (f(\sqrt{x}))^r - f(x)$$

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$$\Rightarrow x^r + \frac{1}{x^r} + r - x^r - \frac{1}{x^r} = r$$