

$$\sum_{i=1}^9 f(i) = -\frac{1}{3} \left(\sum_{i=1}^9 i \right) + 90 = -\frac{1}{3} (1+2+\dots+9) + 90 = 90 - \frac{1}{3} (45) = 90 - 15$$

$$\longrightarrow \boxed{75}$$

f

$$R_f = [2, +\infty) \longrightarrow a = 0, f(3) = 1 \longrightarrow \sqrt{3b+c} = 1 \longrightarrow 3b+c = 1$$

$$\longrightarrow f(2) = 0 \longrightarrow 2b+c = 0 \longrightarrow \cancel{c = -2b}$$

$$\Rightarrow 3b+c = 3b-2b = 1 \longrightarrow \boxed{b=1} \longrightarrow \boxed{c=-2}$$

$$R_g = \sqrt{\mathbb{R}} \xrightarrow{\text{cancel}} R_g = [2, +\infty)$$

$$g(x) = \sqrt{x^2+4}$$

v

$$\frac{x^3-4x}{x+2} = \frac{x(x-2)(x+2)}{x+2} \Rightarrow x(x-2); x \neq -2 \Rightarrow a = -2$$

$$f(b) = 8 \Rightarrow b(b-2) = 8 \begin{cases} b = -2 \\ b = 4 \end{cases} \quad a, b = -2, 4$$

$$\min f(x) = f\left(\frac{-b}{2a}\right) = f(1) = -1 \longrightarrow \boxed{c = -1}$$

$$f(-1) = \frac{-1+4}{1} = \boxed{3}$$

$$\frac{a+b}{2} = \frac{-2+4}{2} = 1$$

A

$$a = -6, b = 12, f(x) = x-2$$

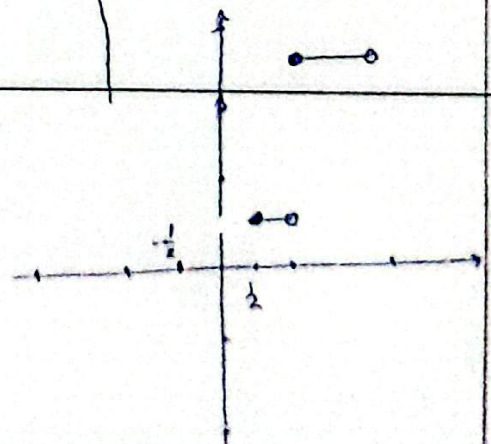
$$D_f = [-6, 12] \longrightarrow R_f = [-8, 10]$$

9

$$f(x) = \sqrt[3]{x^3-6x^2+12x-8} = \sqrt[3]{(x-2)^3} = x-2$$

$$y = 2[x] + \frac{1}{2}$$

بخواب



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