

الف $-4, 2, 2 \rightarrow$

$-1, 2, 2, 2 \rightarrow -1, 2, 2, 2$

ب $-4, 2, 2, 2 \rightarrow -1, 2, 2, 2 \rightarrow -1, 2, 2, 2$

$f(x) = x + \sqrt{x-2} \rightarrow x-2 + \sqrt{x-2}$

قرینه $y=x$ بر $y=x$ تأثیر ندارد

$\Rightarrow x-2 + \sqrt{x-2} = x \Rightarrow x=1, y=1$

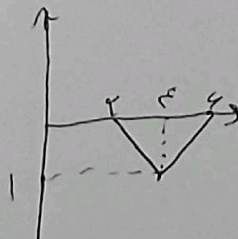
$\bullet \frac{1}{x^2} + 1 \rightarrow \frac{1}{x^2} + 1$

$y=f(x) \rightarrow y=1 \Rightarrow \delta = \frac{1 \times \frac{1}{x^2}}{2} = \frac{1}{2x^2}$

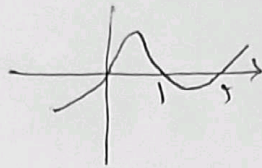
$f(x) = -3 \rightarrow \frac{x-a}{2} = 2 \rightarrow x = 4+a$

$\rightarrow a + 2(-3) \rightarrow y = -6+a$

$-6+a = 1+2a-1 \Rightarrow a=-7$



$$f(x-1) \rightarrow$$



⑥

$$(x+5)f(x-1) \delta$$

$$\begin{pmatrix} x+5 \\ f(x-1) \end{pmatrix} = \begin{pmatrix} + & + & + \\ - & + & - \\ - & + & - \end{pmatrix} \rightarrow$$

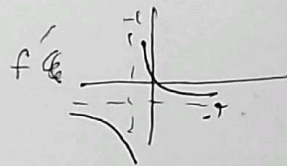
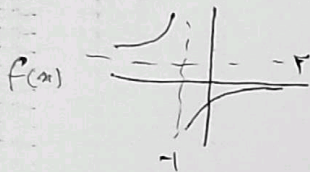
$$D_y = [-5] \cup [1]$$

$$g(x) = |x(x+5) - 5| - 5$$

$$g(x) = f(x) \rightarrow |x(x+5) - 5| - 5 = |x(x+5) - 5| - 5 \rightarrow x = |x(x+5) - 5| - 5$$

$$\Rightarrow \left(x = \frac{9}{5} \right) \rightarrow \frac{9}{5} - \frac{5}{5}$$

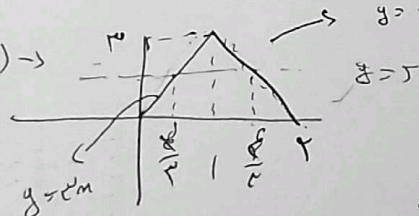
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ع ق ق



باید تعداد کلمات را هم واحد
ما را به هر یک تا به f برآورده کند

⑦

$$f(x-1) \rightarrow$$



$$y = -x + 5 \rightarrow x = -y + 5 \rightarrow x = \frac{5}{2}$$

$$\delta = \frac{\frac{5}{2} \times 1}{2} = \frac{1}{4}$$

$$y = 5 - x \rightarrow x = \frac{5}{2}$$

$$\frac{5 \times 5}{2} = 5 \rightarrow \frac{5}{2} - 5 = \frac{1}{2}$$

$$x = -y + 5$$

$$\rightarrow \frac{(a-5)}{2} = \frac{1}{2} \rightarrow a = 6$$

$$f\left(\frac{1}{2}\right) = -\frac{1}{2} + 5 = \frac{9}{2}$$