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$$Df_{(1)} = [-r, r]$$

طالع و صبا (ع)

$$Df\left(\frac{rx+r}{\Delta}\right) \rightarrow r \leq \frac{rx+r}{\Delta} \leq r \rightarrow -1 \leq rx+r \leq r \rightarrow -1 \leq rx \leq 1 \rightarrow -1 \leq x \leq 1$$

$$Df\left(\frac{rx+r}{\Delta}\right) = [-1, 1]$$

$$5. Df(rx-r) = [-r, r] \rightarrow -r \leq x \leq r \rightarrow -1 \leq rx \leq 1 \rightarrow -1 \leq rx-r \leq r$$

$$Df(rx-r) = [-1, r]$$

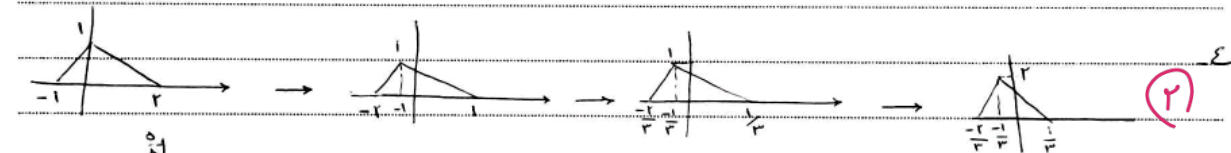
$$Df\left(\frac{rx+1}{r}\right) = [-1, r] \rightarrow -1 \leq x \leq r \rightarrow -r \leq rx+1 \leq 1 \rightarrow -1 \leq \frac{rx+1}{r} \leq r$$

$$Df(rx) = -1 \leq r-0x \leq \Delta \rightarrow -1 \leq rx \leq r \rightarrow -\frac{1}{r} \leq x \leq \frac{r}{\Delta}$$

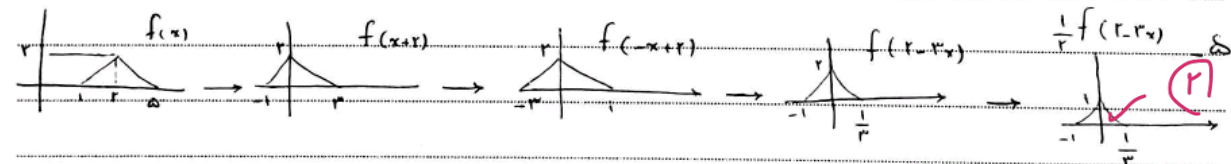
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$$Df(rx) = \left[-\frac{1}{r}, \frac{r}{\Delta}\right]$$



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$$20. y = \frac{-1}{r}(x-\Delta) + r = \frac{-x}{r} + \frac{\Delta}{r}x - \frac{\Delta}{r} + r = \frac{-x}{r} + \frac{\Delta}{r}x + \frac{r}{r} \rightarrow x \wedge x + v$$

$$(x-1)(x-v)$$

$$y = a(x-1)^2 + c \xrightarrow{x=r} a = -1 \rightarrow (x-1)^2 + r = f(x)$$

$$y = 1 - rf(rx+r) = 1 - r(-(rx+1))^2 + c = 1 + r(rx+1)^2 - 1 = r(rx+1)^2 - v$$

$$25. = r(9x^2 + 4x + 1) - v = 18x^2 + 12x - \Delta$$

$$\alpha = \frac{-12}{18} = -\frac{2}{3}$$

$$\beta = \frac{-\Delta}{18} = \frac{x \wedge x}{x \wedge x} = -v$$

$$\alpha\beta = +\frac{v}{3}$$

مقدار آفر

$$Df_{(1)} = [a, c] \quad Dg_{(1)} = [-1, b] \quad y = f(x-1) + g(x+1) \rightarrow D = [-r, \Delta]$$

$$Df_{(r-1)} = (a+1, \Delta] \quad Dg_{(r+1)} = [r, b-1) \quad \alpha \wedge \beta = (a+1, b-1)$$

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α

β

$$a = -r \rightarrow a-b = -v$$

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$$y = f\left(\frac{x}{r} + 1\right) \quad Df\left(\frac{x}{r} + 1\right) = [-r, \Delta] \quad -\frac{r}{r} + 1 \leq \frac{x}{r} + 1 \leq \frac{\Delta}{r} + 1 \quad (r) \quad 9$$

$$-\frac{1}{r} \leq \frac{x}{r} + 1 \leq \frac{\Delta}{r}$$

$$Df(rf(x) - r) = \left[-\frac{1}{r}, \frac{\Delta}{r}\right] \quad \checkmark$$

$$5 \quad rf(x) = [-1, r] \rightarrow -\Delta \leq rf(x) - r \leq 1 \rightarrow |rf(x) - r| \leq \Delta$$

$$0 \leq \sqrt{|rf(x) - r|} \leq \sqrt{\Delta}$$

$$\Rightarrow rf = [0, \sqrt{\Delta}] \quad \checkmark$$

$$f(x) = \left| \frac{x+1}{rx+1} \right| \rightarrow g(x) = \left| \frac{(x-r)+1}{r(x-r)+1} \right| + 1 = \left| \frac{x-r}{rx-r} \right| + 1 \quad (r) \quad 10$$

$$10 \quad \frac{|x-1|}{|rx-r|} + x+1 < 0 \rightarrow 1 < x < \frac{r}{r} \rightarrow x+1 < \frac{x-1}{rx-r} \rightarrow \frac{rx^2 - rx + r}{rx-r} > 0 \quad \Delta < 0$$

$$x < 1, x > \frac{r}{r} \rightarrow \frac{rx^2 - \varepsilon}{rx-r} \rightarrow \frac{-\sqrt{r} \quad \sqrt{r} \quad \frac{r}{r}}{- \quad + \quad - \quad +}$$

$$(-\infty, \checkmark) \quad (-r)$$

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$$\begin{cases} rx+r=1 \Rightarrow x=-\frac{1}{r} \Rightarrow \alpha = -\frac{1}{r} \\ y=1-rf(1)=1-r(f)= -v \Rightarrow \beta = -v \end{cases} \rightarrow \alpha\beta = \boxed{\frac{v}{r}} \quad \checkmark$$

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