

نام و نام خانوادگی: بهرستند

→ $D_{\text{avg}} = ?$ [1,4]

$$\left| -1 \leq \frac{rx+y}{2} \leq \varepsilon \right| \sim -1 \leq rx+y \leq 2\varepsilon \rightarrow -1 \leq rx \leq 1$$

$$-5 \leq x \leq 4$$

$$\underline{F(r_n - r) \rightsquigarrow \rho = [-r, r]}$$

$$3(-2) - 2 = -6 - 2 = -8$$

$$r(r) - r = v$$

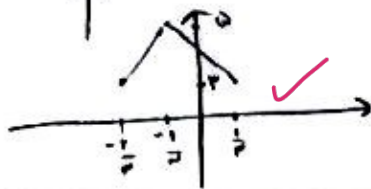
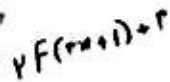
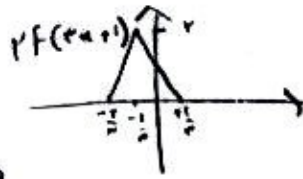
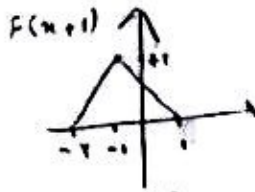
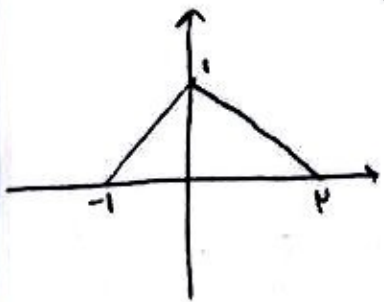
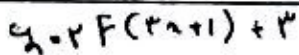
$$f\left(\frac{r+1}{r}\right) \leadsto D = [-1, r)$$

$$F(x) \left\{ \begin{array}{l} \frac{r(-1) + 1}{r} = \frac{-r}{r} = -1 \\ \frac{r(r) + 1}{r} = \omega \end{array} \right\} \sim [-1, \omega]$$

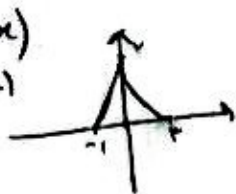
$$-1 \leq \nu - \Delta\eta < 0 \sim -\nu \leq -\Delta\eta \leq \nu_\mu$$

$$\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$$

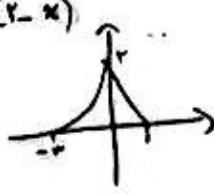
$$u_{\text{min}} = 0.25 \text{ m/s}$$



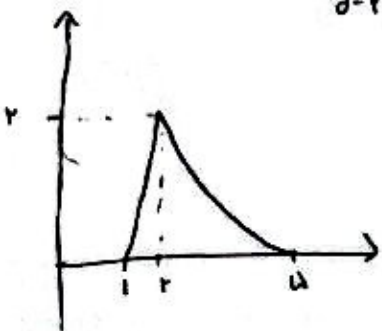
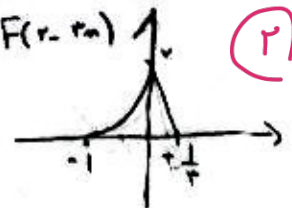
$$g = \frac{1}{r} F(r - r_n)$$



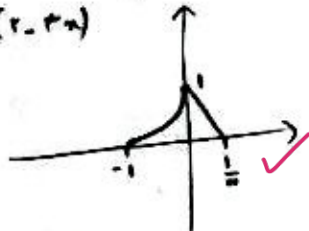
$$f(r-x)$$



$$F(r, r')$$



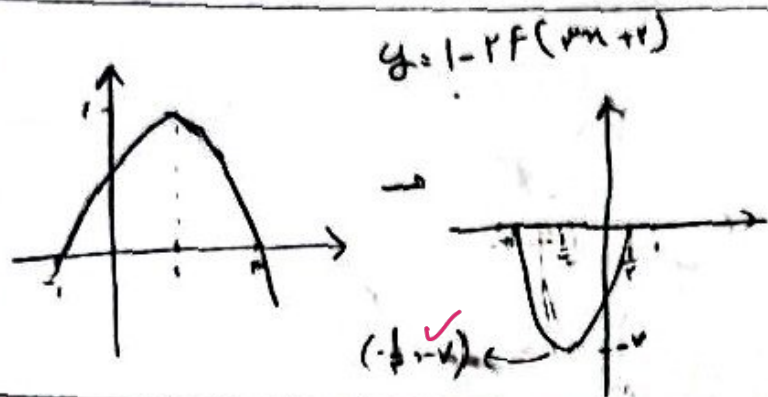
$$y = \frac{1}{r} f(r, r\alpha)$$



$$y = -\frac{1}{p}x' + \frac{r}{q}x + 1 \quad (E, r)$$

$$y = a(n-h)^r + 1 \rightarrow y = -\frac{1}{p}(n-r)^r + r \xrightarrow{y=0} -\frac{1}{p}(n-r)^r + r = 0$$

$$\begin{cases} -\frac{1}{p}(n-r)^r = -r \\ n-r = r \end{cases} \rightarrow \begin{cases} n = 2r \\ n = 1 \end{cases}$$

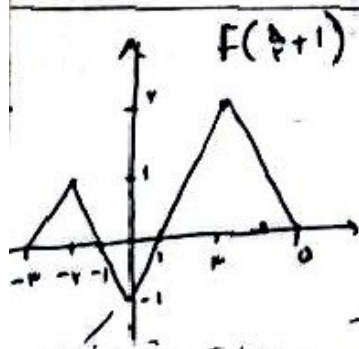


$$a \cdot b = \frac{r}{p}$$

$$P_f = (a, \varepsilon], P_g = [\varepsilon, b) \quad \& \rightarrow f(x-1) + g(x+1) \rightarrow P = (-r, d)$$

$$\begin{cases} -1 \leq x+1 \leq b \rightarrow -r \leq x \leq b-1 \\ a \leq x-1 \leq \varepsilon \rightarrow a+1 \leq x \leq \varepsilon \end{cases} \rightarrow P_y = (a+1, \varepsilon] \cap [-r, b-1) = (-r, d)$$

$$\begin{cases} a+1 = -r \rightarrow a = -r \\ b-1 = 0 \rightarrow b = 1 \end{cases} \rightarrow a-b = -r-1 = -q$$



$$y = \sqrt{|rF(x)-r|} \rightarrow |rF(x)-r| \geq 0$$

$$P_f = [-\frac{1}{r}, \frac{1}{r}] \quad R_f = [-1, r]$$

$$\begin{aligned} -\frac{r}{r} + 1 &= -\frac{1}{r} \\ \frac{r}{r} + 1 &= \frac{1}{r} \end{aligned}$$

$$[-1, r] \xrightarrow{rF(x)} [-r, \varepsilon] \xrightarrow{r} [a, 1]$$

$$\begin{aligned} \text{مجموعة } P &= [-\frac{1}{r}, \frac{1}{r}] \\ \text{مجموعة } R &= [0, \sqrt{a}] \end{aligned}$$

$$0 \leq |rF(x)-r| \leq a \rightarrow [0, \sqrt{a}]$$

$$f(x) = \left| \frac{x+1}{rx+1} \right| \xrightarrow{\text{نقطة } r} \left| \frac{x-r+1}{r(x-r)+1} \right| = \left| \frac{x-1}{rx-r} \right| \xrightarrow{\text{نقطة } r} \left| \frac{x-1}{rx-r} \right| + 1 = g(x)$$

$$x + \left| \frac{x-1}{rx-r} \right| + 1 < 0 \rightarrow \left| \frac{x-1}{rx-r} \right| < -x-1 \rightarrow -(x+1) > 0$$

$$\frac{x-1}{rx-r} < -x-1 \rightarrow \frac{x-1 + rx^2 - x - r}{rx-r} = \frac{rx^2 - \varepsilon}{rx-r} < 0 \rightarrow \frac{-\sqrt{r}}{r} < \frac{x}{r}$$

$$\frac{x-1}{rx-r} > -x-1 \rightarrow \frac{x-1 - rx^2 + r}{rx-r} > 0 \rightarrow \frac{0}{0} \rightarrow P_{\text{مجموعة}} = (-\infty, r]$$

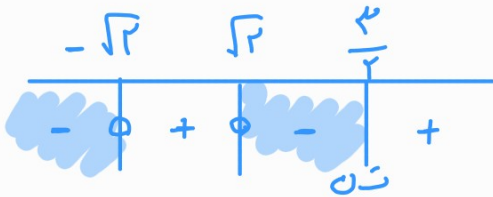
$$g(n) = \left| \frac{(n-2)+1}{2(n-2)+1} \right| + 1 = \left| \frac{n-1}{2n-3} \right| + 1$$

$$n + g(n) < 0 \rightarrow \left| \frac{n-1}{2n-3} \right| < -1-n$$

از این قدر مطلق بزرگتر شده پس باید مثبت

باشد: $-1-n > 0 \rightarrow n < -1$

$$\xrightarrow{n < -1} \frac{n-1}{2n-3} < -1-n \rightarrow \frac{2n^2-4}{2n-3} < 0 \rightarrow \frac{2(n-\sqrt{2})(n+\sqrt{2})}{2n-3} < 0$$



$$\xrightarrow{n < -1} n < -\sqrt{2} \rightarrow (-\infty, -\sqrt{2})$$