

$$-2 \leq \frac{3x+2}{5} \leq 2 \Rightarrow -10 \leq 3x+2 \leq 10$$

$$-12 \leq 3x \leq 18 \quad \textcircled{-4 \leq x \leq 6}$$

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$$\text{if } x = -2 \rightarrow -6 - 2 = -8$$

$$\text{if } x = 3 \rightarrow 9 - 2 = 7$$

$$\textcircled{[-8, 7]}$$

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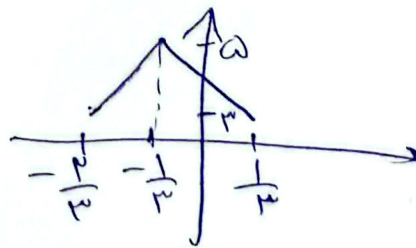
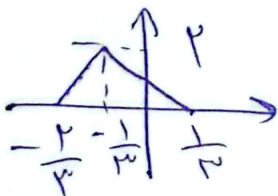
$$\text{if } x = -1 \rightarrow \frac{(3x-1)+2}{2} = -1$$

$$\text{if } x = 3 \rightarrow \frac{3x+2}{2} = 2 \quad \left. \vphantom{\frac{3x+2}{2}} \right\} \rightarrow [-1, 2]$$

$$-1 \leq 2 - 2x < 2 \Rightarrow 2 \geq 2x > -2 \Rightarrow \frac{2}{2} \geq x > \frac{-2}{2}$$

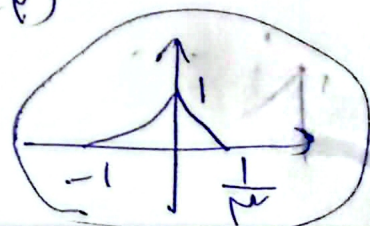
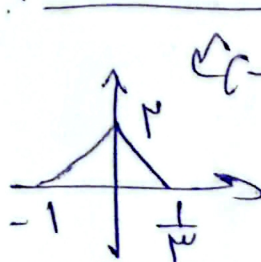
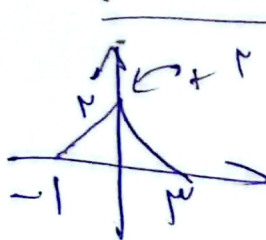
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$$y = 2f(3x+1) + 2$$



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$$\frac{1}{2}f(2-3x) \rightarrow \frac{1}{2}f(-3x+2)$$



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$$-\frac{1}{p}n + \frac{p}{q}n + 1 \rightarrow -\frac{1}{p}(n-1) + \frac{p}{q}n = -\frac{1}{p}n + \frac{1}{p} + \frac{p}{q}n$$

$$y = a(n-1)^p + b$$

$$f_1 = (1, p)$$

$$a = -\frac{1}{p}$$

$$n^p - 1n + p \Rightarrow (n-1)(n-p)$$

$$n=1, p$$

$$f_1 = (1, p) \Rightarrow n=1 \rightarrow -\frac{1}{p} - 1 + \frac{1}{p} - \frac{1}{p}$$

$$y = p \frac{x-p}{p} - 1 + 1 - p$$

$$\alpha \beta = -\frac{1}{p}x - p = \left(\frac{p}{p}\right)$$

$$y = f(n-1) + g(n+1) \rightarrow D_{f(n-1)} + D_{g(n+1)} = D_{f(n-1)} \cap D_{g(n+1)}$$

$$D_{f(n-1)} = (a+1, a]$$

$$D_{g(n+1)} = [-p, b-1] \quad (-p, a]$$

$$\Rightarrow a+1 = -p \Rightarrow a = -p$$

$$b-1 = 0 \Rightarrow b = 1$$

$$a-b = -p-1 = -9$$

$$D: [-p, a]$$

$$-p \leq n \leq 0 \Rightarrow -\frac{p}{p} \leq \frac{n}{p} \leq \frac{0}{p}$$

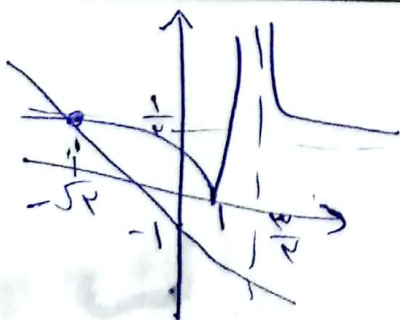
$$-\frac{1}{p} \leq \frac{n}{p} + 1 \leq \frac{p}{p}$$

$$R: [-1, p] \Rightarrow -1 \leq f(n) \leq p \Rightarrow 0 \leq |pf(n) - p| \leq 1$$

$$D_{y_p} = \left[-\frac{1}{p}, \frac{p}{p}\right]$$

$$R_{y_p} = [0, 1]$$

$$\Rightarrow 0 \leq \sqrt{|pf(n) - p|} \leq 1$$



$$f(n-1) + 1 = \left| \frac{n-1}{p(n-1)+1} \right| + 1$$

$$\left| \frac{n-1}{p(n-1)+1} \right| + 1 + n < 0 \Rightarrow n-1 = -pn + 1$$

$$\Rightarrow pn - p = 0 \Rightarrow n = \pm \sqrt{p}$$

$$n < \sqrt{p} \quad n = -\sqrt{p}$$