

الف	$-4 \leq n \leq 2$ $\Rightarrow -16 \leq 2n-2 \leq -8$ $\Rightarrow D_f = [-16, -8]$	ب	$-4 \leq 2n-2 \leq 2$ $\Rightarrow -2 \leq 2n \leq 4$ $\Rightarrow -\frac{2}{2} \leq n \leq \frac{4}{2}$	۱
-----	--	---	--	---

۲	$f(n-2) = n-2 + \sqrt{n-4}$ در انتهای محل برخورد این تابع با محور دایه خاصه $n-2 + \sqrt{n-4} = n \Rightarrow n = 8$ $y = n-2 + \sqrt{n-4} \Rightarrow y = 8$	
---	--	--

۳	$f(2n+1) = \frac{g(n)}{2} \Rightarrow f(n+1) \Rightarrow f(n)$	
---	--	--

۴	$\frac{n-a}{2} = 2 \Rightarrow n = a+4$ $a-9 = 2(a+4) - 1$ $a-9 = 2a+8 \Rightarrow a = -17$ $y' = a+2f\left(\frac{a+4-a}{2}\right)$ $y' = a-9$	
---	--	--

۵	$y = f(n-2) \quad y = f(n) \quad y = f(n+4) \quad y = f(-n+4)$ $y = \frac{1}{2} f(-n+4)$	
---	--	--

$$f(x) = 0 \rightarrow x = -1 \underline{6} \underline{2} \underline{6} \underline{2}$$

$$f(r^{n-1}) = 0 \rightarrow x = 0 \underline{6} \underline{1} \underline{6} \underline{2}$$

$$-(x+r) f(r^{n-1}) \begin{array}{c} -r \quad 0 \quad 1 \quad r \\ \hline - \quad + \quad - \quad + \quad - \end{array}$$

$$\Rightarrow D = [-r, 0] \cup [1, r]$$

$$g(x) = f(x+r) - r$$

$$f(0) = g(0)$$

$$g(x) = |r(x+r) - r| + 1$$

$$\Rightarrow r = |rk - r| + 1$$

$$g(x) = |rx + rk - r| + 1$$

$$\Rightarrow |rk - r| = r$$

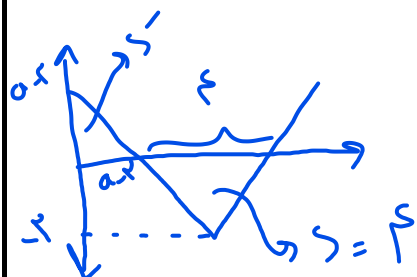
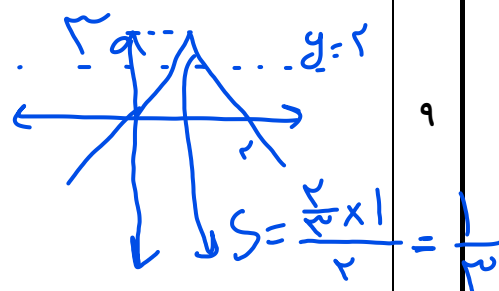
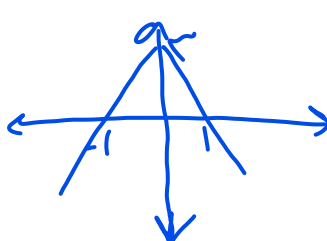
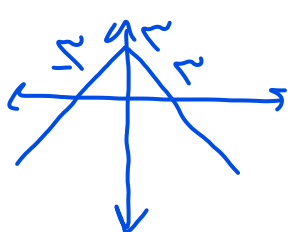
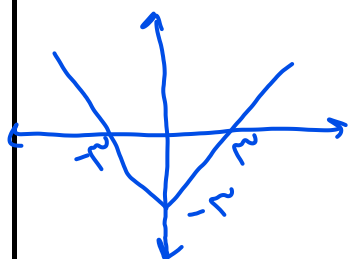
$$\stackrel{k \geq 0}{\Rightarrow} k = r$$

$$y = -f\left(\frac{x}{r}\right)$$

$$y = f\left(\frac{x}{r}\right)$$

$$y = f(x)$$

$$y = f(x-1)$$



$$S + S' = \frac{9}{r} \Rightarrow S' = \frac{1}{r}$$

$$\left(\frac{a-r}{r}\right)^r = \frac{1}{r} \Rightarrow a = r \checkmark$$

$$a = 1 \cup \bar{0} \bar{1}$$

$$f(x) = |x - r| - r$$

$$f\left(\frac{1}{r}\right) = \left|\frac{1}{r} - r\right| - r = \frac{r}{r}$$