

۱- در جواب

ما بعد از عملیات در طرفین داریم

$$y = \frac{|n|+1}{|n|-2}$$

$$\rightarrow y = \frac{n^2+1}{n^2-4}$$

$$y|n|-2y = |n|+1$$

$$y|n| = n^2+1 \rightarrow n^2 - y|n| + 1 = 0$$

$$|n|(y-1) = y+1 \rightarrow |n| = \frac{y+1}{y-1}$$

$$\rightarrow |n|^2 - y|n| + 1 = 0$$

$$\frac{-1}{+0} \quad \frac{1}{+0} \quad \leq$$

$$|n| = \frac{y \pm \sqrt{y^2 - 4}}{2} \rightarrow \frac{-2}{+0} \quad \frac{2}{+0}$$

$$R_f = (-\infty, -\frac{1}{2}] \cup (1, +\infty)$$

$$R_f = [2, +\infty) \quad \text{چون } y \geq 0 \rightarrow y > 0$$

$$y^2 + y = n^2 + 2n - 2 \rightarrow n^2 + (2-y)n - 2 - y = 0$$

$$y = \frac{n^2 + 2n - 2}{n+2}$$

$$\rightarrow n = \frac{y-2 \pm \sqrt{y^2 - 2y + 2 - 2(-2-y)}}{1+1+y}$$

$$y^2 + 4y + 12 > 0 \rightarrow \frac{y^2 + 4y + 12}{+} \rightarrow R_f = (-\infty, -6] \cup [-2, +\infty)$$

$$R_f \rightarrow n^2 - n + 1 \neq 0 \rightarrow \Delta < 0 \Rightarrow \text{حواص}$$

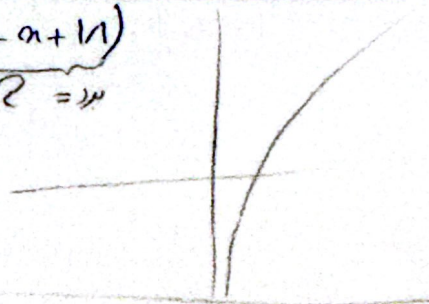
$$y = \frac{n^2 - n + 1}{n^2 - n + 1}$$

$$R_f = [1, 2] \rightarrow \frac{(n-\frac{1}{2})^2}{(n-\frac{1}{2})^2 + \frac{3}{4}} \rightarrow R_f = [0, 1)$$

$$y = \sqrt{-n^2 + 2n - 1} \rightarrow R_f = (-\infty, 2] \rightarrow [0, \sqrt{3}]$$

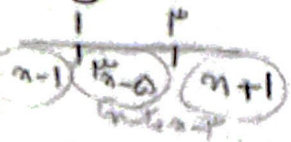
$$y = \sqrt{7n^2 - 14n} \rightarrow \text{cat} \rightarrow \frac{1}{2} = 2 \rightarrow R_f = [-2, +\infty)$$

$$y = \log(n^2 - n + 1) \rightarrow R = \mathbb{R}$$

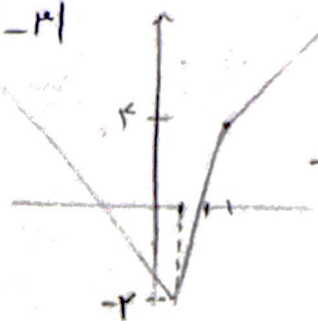


$$y = \log_r \left(\frac{n^2+1}{n} \right) \rightarrow n > 0 \rightarrow R_f = [1, +\infty)$$

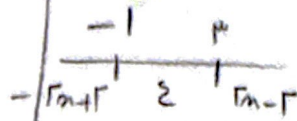
الف) $y = |m-1| - |m-2|$



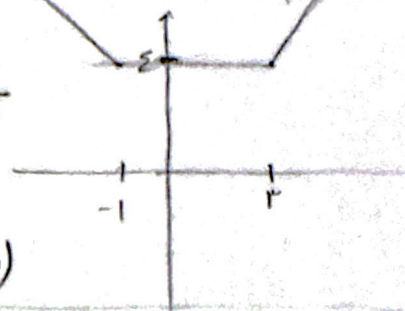
$D_f = [-2, +\infty)$



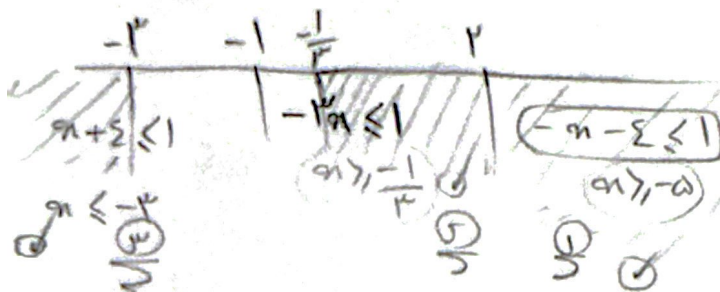
ب) $y = |m-1| + |m+1|$



$D_f = [-2, +\infty)$



برای تابع مذکور

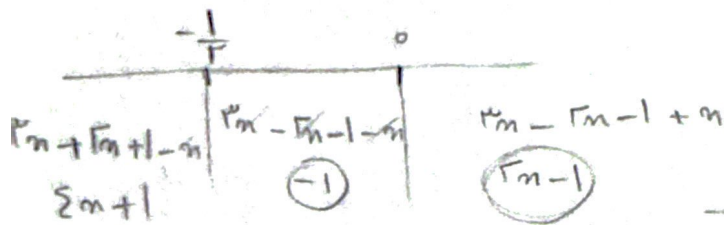


؟ $|m-1| - |2m+1| \leq 1$

۷- در دو صورت

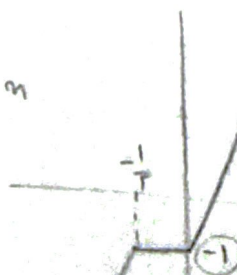
$-m+1-2m-1$
 -3

$D_f = (-\infty, -1] \cup [1, +\infty)$



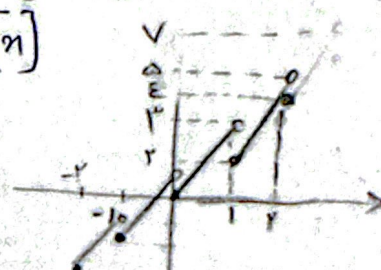
۸- برای تابع $y = 2|m-1| + |m|$

$D_f = \mathbb{R}$



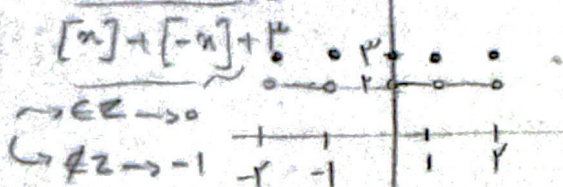
۹- نمودار تابع در بازه $[-2, 2]$ را مشخص کنید

$y = 2|m-1| + |m|$
 $0 < m < 1$
 $1 < m < 2$
 $-1 < m < 0$



$D_f = [-2, +\infty)$

الف) $y = [m] + [3-m]$



$D_f = [1, 3]$

ب) $y = \sin m - \sin(m+1)$

$\sin m = 1 \rightarrow 1 - 1 + 1 = 1$
 $\sin(m+1) = 1 \rightarrow 1 + 1 + 1 = 3$

$\rightarrow -(-\frac{1}{2}) = \frac{1}{2} \rightarrow \frac{1}{2} - \frac{1}{2} + 1 = 1$

۱۰- برای تابع $y = \sin^2 m + \sin^2(m+1)$

$\sin^2 m = 1 \rightarrow 1$
 $\sin^2(m+1) = 1 \rightarrow 1$
 $\rightarrow \frac{1}{2}$

برای تابع