

$$f(m+1) + f(m+2) = m+1 \rightarrow f(m+1) = m+1 - f(m+2) \rightarrow f(m+1) + f(m+2) = m+1$$

$$a+m+b \rightarrow (a+1)+b+(a+2)+b = m+1 \rightarrow a+m+b+a+m+b = m+1$$

$$2a+2m+2b = m+1 \rightarrow a+m+b = \frac{m+1}{2}$$

$$a=1, b=1 \rightarrow a+b=2 \rightarrow m+2=2 \rightarrow m=0$$

$$R_f = [0, \sqrt{2}]$$

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$$f(m) = \frac{m^2 - 1}{m+1} = \frac{(m-1)(m+1)}{m+1} = m-1$$

$$m^2 - 1 \neq 0 \rightarrow m-1 \neq 0 \rightarrow m \neq 1$$

$$R_f = (-\infty, +\infty) - \{1\}$$

$$\frac{f-1}{-1} = -1$$

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$$y = \sqrt{m^2 - 2m + 1} = m-1$$

$$R_f = [-1, 1]$$

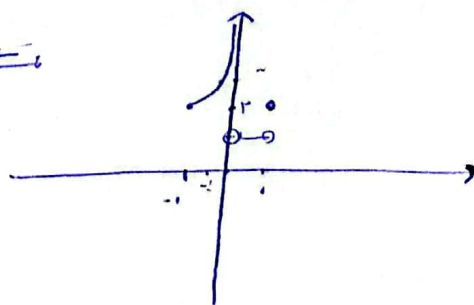
$$a=-1, b=1 \rightarrow R_f = [-1, 1]$$

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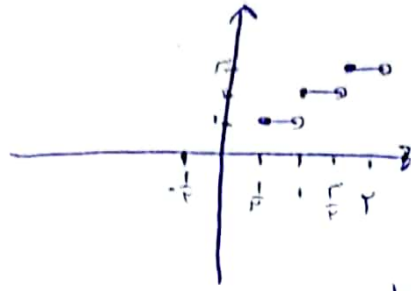
$$\begin{cases} -1 < m < 0 \rightarrow \frac{-1}{m} + \frac{1}{m} = \frac{-1+1}{m} = 0 \\ 0 < m < 1 \rightarrow \frac{0}{m} + 1 = 1 \\ m=1 \rightarrow y \end{cases}$$

$$R_f = \mathbb{R} - \{0\}$$



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$$\begin{cases} \frac{1}{2} \geq n > 1 \rightarrow [n] + [n + \frac{1}{2}] = 1 \\ 1 \geq n > \frac{5}{2} \rightarrow [n] + [n + \frac{1}{2}] = 2 \\ \frac{5}{2} \geq n > 2 \rightarrow [n] + [n + \frac{1}{2}] = 3 \end{cases}$$

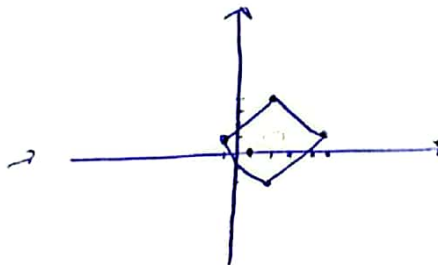
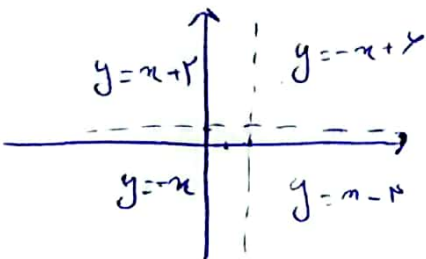


تا 3، 2، 1

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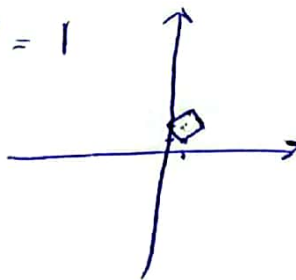
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$$|x-2| + |y-1| = 3$$

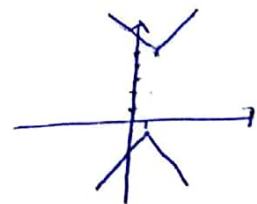


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$$\text{الف} \quad |x-1| + |y-2| = 1$$



$$\text{ب} \quad |x-1| - |y-2| = -2 \quad |y-2| - |x-1| = 2$$



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$$y = 3x + |ax + b| \rightarrow (3+a)x + b \text{ باشند} \quad \text{تا برد } \mathbb{R} \text{ مستقر}$$

$$3+a > 0 \Rightarrow 3 > -a \geq -3a$$

$$3-a > 0 \Rightarrow 3 > a \quad a \in (-3, 3)$$

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