

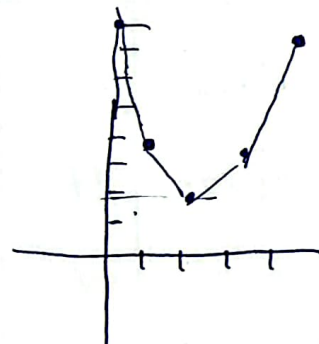
$D_f = [1, 1]$ $D_g = \{-1, 0, 1\}$ $g - f = \{(-1, 2), (0, 5), (1, 4)\}$ (۱.۷.۵)

$R_{g-f} = \{2, 5, 4\}$ $\xrightarrow{\text{مجموع}} (11)$
دقت!

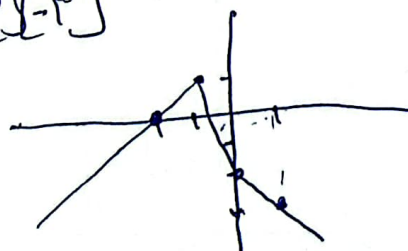
$R_f = [\omega, +\infty)$ $R_g = (-\infty, 4]$ $R_f \cup R_g = (-\infty, 4] \cup [\omega, +\infty)$ (۲)
 $f(m)$ $g(m)$
 $2(2) - 1 = 5$ $\frac{1}{4}(2) + 3 = 4$
 $\text{محدود} > 0$ $\text{محدود} > 0$

$-\frac{n^2}{2} + n + 2 > \frac{2}{n} \Rightarrow -n^2 + 2n + 4 > 2 \Rightarrow 0 > n^2 - 2n - 2$ (۲)
 $\Rightarrow \frac{-1 \pm \sqrt{1+8}}{2} \Rightarrow (-1, 3)$ $a = -1$ $b = 2$ $\sqrt{\frac{2+1}{4}} = \frac{2}{2}$ (۳)

یکه در ۲ و ۳ و ۱ یکمیل $\Rightarrow$ (شماره)
 $\Rightarrow$ $\sqrt{2}$ ✓



$(\text{شماره}) \Rightarrow 0, -1 \Rightarrow \begin{bmatrix} -2 \\ 0 \end{bmatrix}, \begin{bmatrix} -1 \\ 0 \end{bmatrix}, \begin{bmatrix} 0 \\ -2 \end{bmatrix}, \begin{bmatrix} 1 \\ -2 \end{bmatrix}$
 $R_f = (-\infty, 1]$ ✓



$$y^2 + y = n^2 + \omega n + m \Rightarrow n^2 + (\omega - y)n + (m - y)$$

(2)

$$\Delta \geq 0 \quad (\omega - y)^2 - 4(m - y) \geq 0 \Rightarrow y^2 + y - 4\omega y - 4m + 4y \geq 0$$

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$$\Rightarrow y^2 - 4y + (4\omega - 4m) \geq 0 \Rightarrow \Delta < 0 \Rightarrow 4y - 4(4\omega - 4m) < 0$$

$$-4y + 16m < 0 \quad m \in \mathbb{N} \quad \text{المطلوب} = \{1, 2, 3\} \quad \text{نفسه } \checkmark$$

$$1^{\circ} \Rightarrow n \geq 2 \quad n+1 \Rightarrow [2, +\infty)$$

(2)

$$2^{\circ} \Rightarrow 0 \leq m < 2 \quad n^2 - 4m + 1 \leq \omega \Rightarrow R = [1, \omega)$$

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$$3^{\circ} \Rightarrow |n| + 1 \quad n < 0 \Rightarrow R = [2, +\infty)$$

$$R_f = [1, +\infty) \checkmark$$

$$n^2 + 4m + 1 \leq 1 \quad n \leq 0 \Rightarrow R = [-1, +\infty)$$

(2)

$$n > 0, -1 < [4m] - 4m \leq 0 \quad R = [1, 0] \quad \text{النتيجة}$$

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$$R_f = [-1, +\infty) \checkmark$$

$$1^{\circ} \Rightarrow 4m + 1 \geq 0 \quad 4m \geq -1 \quad n \geq \frac{1}{4} = b \checkmark$$

(2)

$$2^{\circ} \Rightarrow \text{المطلوب} \Rightarrow a+1 = a \quad a = 1 \checkmark$$

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$$ab = -\frac{1}{4} \times 1 = -\frac{1}{4} \checkmark$$

$$D_f \Rightarrow n \geq -1 \quad n \leq 1 \Rightarrow D_f = D_g = [-1, 1]$$

(1, 1/2)

$$(\sqrt{n+1} + \sqrt{1-n})^2 = 2 + 2\sqrt{1-n^2} \quad f(n) + g(n) = 2 \quad \text{المطلوب}$$

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

$$\sqrt{1-n} \Rightarrow R = [0, 1] \checkmark$$

$$\sqrt{2 + 2\sqrt{1-n^2}} = \sqrt{n+1} + \sqrt{1-n}$$

$$n = -1 \text{ إلى } 1 \quad \checkmark$$

المطلوب