

$$-2 \leq \frac{n+1}{5} \leq 2 \rightarrow -10 \leq n+1 \leq 10 \rightarrow -11 \leq n \leq 9 \rightarrow -2 \leq n \leq 2 = D_{f(n)}$$

$$-2 \leq n \leq 2 \rightarrow -2 \leq n \leq 2 \rightarrow -11 \leq n-2 \leq 7 \rightarrow D_f = [-11, 7]$$

$$-1 \leq n \leq 3 \rightarrow -2 \leq n+1 \leq 4 \rightarrow -1 \leq \frac{n+1}{2} \leq 2$$

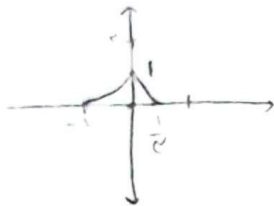
$$-1 \leq 2 - 5n \leq 5 \rightarrow -3 \leq -5n \leq 7 \rightarrow \frac{3}{5} \leq n \leq \frac{7}{5} \rightarrow D_f = (\frac{3}{5}, \frac{7}{5}]$$

$$-1 \leq n+1 \leq 2 \rightarrow -2 \leq n \leq 1 \rightarrow -\frac{2}{3} \leq n \leq 1$$

$$n+1=0 \rightarrow n=-1$$



$$-1 \leq 2 - 3n \leq 5 \rightarrow -1 \leq -3n \leq 3 \rightarrow -\frac{1}{3} \leq n \leq 1, \quad 2 - 3n = 2 \rightarrow n=0$$



$$-\frac{1}{2}(n-4)^2 + 2 = -\frac{1}{2}n^2 + \frac{4}{2}n - \frac{14}{2} + 2 = -\frac{1}{2}n^2 + \frac{4}{2}n - \frac{10}{2} = 0$$

$$-n^2 + 4n - 10 = 0 \Rightarrow -(n-2)(n-1) = 0 \Rightarrow n \leq 1, 2$$

$$n+2 \leq 1 \rightarrow n \leq -1 \Rightarrow A = \{-1\}, \quad B = \{x-2+1 = -1\}$$

$$A \cap B = \{-1\}$$

$$f(n-1) \Rightarrow a \leq n-1 \leq 8 \Rightarrow a+1 \leq n \leq 9 \Rightarrow D_f = [a+1, 9]$$

$$g(n+1) \Rightarrow -1 \leq n+1 \leq b \Rightarrow D_g = [-2, b-1]$$

$$[a+1, 9] \cap [-2, b-1] = (-1, 4) \rightarrow \begin{cases} a = -1 \\ b = 4 \end{cases} \Rightarrow a-b = -1-4 = -5$$

$$g(x) = \sqrt{|x f(x) - c|} \rightarrow |x f(x) - c| \geq 0 \rightarrow \text{مربعاً} \Rightarrow Dg = Df \quad (\text{نكته})$$

$$h(x) = f\left(\frac{x}{v} + 1\right) \rightarrow D_h = [-c, d] \Rightarrow -c \leq \frac{x}{v} + 1 \leq \frac{d}{v} + 1$$

$$\Rightarrow Dg = Df = \left[-\frac{1}{v}, \frac{v}{v}\right]$$

$$R_f = [-1, 1] \Rightarrow -1 \leq x f(x) - c \leq 1 \Rightarrow \sqrt{|x f(x) - c|} \leq \sqrt{1}$$

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