

الف) $x^2 - 1 \geq 0 \Rightarrow x^2 \geq 1 \Rightarrow x \geq 1 \cup x \leq -1$ $x - 2 \geq 0 \Rightarrow x \geq 2$
 $\Rightarrow D_f = [2, +\infty)$

ب) $4 - 5x \geq 0 \Rightarrow x \leq \frac{4}{5}$ $4x - 5 > 0 \Rightarrow x > \frac{5}{4}$
 $\Rightarrow D_f = (\frac{5}{4}, \frac{4}{5}]$

$a \leq x \leq b \cap 4x \geq a \Rightarrow x \leq \frac{b}{4} \cap x \geq \frac{a}{4}$
 لازم که عدد است $\Rightarrow \frac{b}{4} = \frac{a}{4} \Rightarrow \frac{b}{a} = \frac{1}{4} \leftarrow$ پاسخ

الف) $y = \sqrt{\frac{(x-2)(x-3)}{(x^2-1)(x^2-4)}} = \sqrt{\frac{(x-2)(x-3)}{(x^2-1)(x^2-4)}} \quad \frac{-2 \quad -3 \quad 2 \quad 3}{+1 \quad -1 \quad -2 \quad +2}$
 $\Rightarrow D_f = (-\infty, -2) \cup (2, 3) \cup (3, +\infty)$

ب) $y = \sqrt{\frac{(x-1)(x^2-x-4)}{(x+1)(x^2+x-4)}} = \sqrt{\frac{(x-1)(x-2)(x+2)}{(x+1)(x+2)(x-2)}} \quad \frac{-1 \quad -2 \quad -1 \quad 1 \quad 2 \quad 2}{+1 \quad -1 \quad +1 \quad -1 \quad +1 \quad -1}$
 $\Rightarrow D_f = (-\infty, -2) \cup [2, -1) \cup [1, 2) \cup [2, +\infty)$

الف) $2[x] - 4 \geq 0 \Rightarrow [x] \geq 2 \Rightarrow x \geq 2 \Rightarrow D_f = [2, +\infty)$

ب) $2[x] - 5 \geq 0 \Rightarrow [x] \geq 2,5 \Rightarrow x \geq 3 \Rightarrow D_f = [3, +\infty)$

الف) $y = \sqrt{\frac{x+1}{x-1}} + \sqrt{\frac{4-x}{x^2+x+4}} \quad \left\{ \begin{array}{l} x \leq 4 \quad A \\ x \geq -1 - \{2\} \quad B \end{array} \right. \quad \frac{-1 \quad 2}{-1 \quad +1} \Rightarrow$
 $\Rightarrow D_f = [-1, 2) \cup (2, 4]$

ب) $y = \sqrt{x-4} + \sqrt{2-x} \quad [x] \geq 4 \Rightarrow x \geq 4 \quad A$
 $[x] \leq 2 \Rightarrow x < 3 \quad B$
 $A \cap B = \emptyset \Rightarrow D_f = \emptyset$