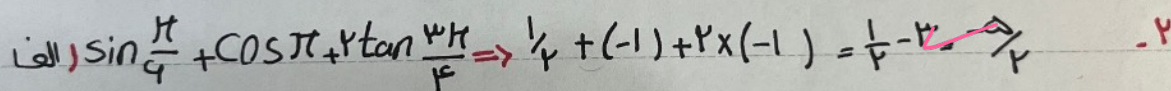


أولاً التلخيص خلاصتها ٢



$$z) \cot \frac{\pi}{\mu} + \mu \cot \frac{\pi}{\mu} - \gamma \tan \frac{\Delta \pi}{\gamma} \Rightarrow \frac{\sqrt{\mu}}{\mu} \cdot \mu (\frac{\sqrt{\mu}}{\mu}) - \gamma (-\frac{\sqrt{\mu}}{\mu}) = \frac{\sqrt{\mu}}{\mu}$$

$$\text{So } \sin \frac{\pi}{4} = \frac{1}{\sqrt{2}} \Rightarrow \frac{|\text{tx}|}{r} = \frac{\pi}{4} \Rightarrow \sin \frac{\pi}{4} \Rightarrow 1 \Rightarrow 1 + \frac{1}{\sqrt{2}}$$

MRNOTE $f(1) = 1^2 + 1 = 2$
 $f(1) = 1 + 1 + 1 = 3$

جمع ضائبا = 0 $\leq$ 1 و 2 $\leq$ a_2 $\leq$ a_1



$$|x+1|=2 \Rightarrow x=1 \text{ أو } -3 \xrightarrow{\text{نستبدل في المعادلة}} 2(-3)^2 - b = a + 2(-3) \Rightarrow$$

$$2 \times 9 - b = a - 6 \Rightarrow 2b = a + 6$$

$$\text{الف) } g = \frac{1}{x^3 - 4x^2} \Rightarrow x^3 - 4x^2 \neq 0 \Rightarrow x^2(x-4) \neq 0$$

$$x \neq 0 \rightarrow D_f = \{x | x \in \mathbb{R}, x \neq 0, 4\}$$

$$\text{ب) } g = \frac{1}{2x^3 + 4x^2 + 2x + 4} \Rightarrow 2x^3 + 4x^2 + 2x + 4 \neq 0 \Rightarrow 2x^2(x+2) + 2(x+2) \neq 0$$

$$(x+2)(2x^2+2) \neq 0 \Rightarrow x \neq -2, 2x^2+2 \neq 0 \Rightarrow$$

$$D = \mathbb{R} - \{-2\} = (-\infty, -2) \cup (-2, \infty)$$

$$\text{الف) } x^2 - 1 > 0 \Rightarrow x^2 > 1 \Rightarrow (-\infty, -1] \cup [1, +\infty)$$

$$x - 2 > 0 \Rightarrow x > 2 \Rightarrow \cap \Rightarrow D_f = \{x | x \in \mathbb{R}, x > 2\}$$

$$\text{ب) } \frac{4-3x}{\sqrt{4x^3}} \Rightarrow 4-3x > 0 \Rightarrow 4 > 3x \Rightarrow x < \frac{4}{3}$$

$$\Rightarrow 4x - 3 > 0 \Rightarrow x > \frac{3}{4} \Rightarrow \cap \Rightarrow \frac{3}{4} < x < \frac{4}{3}$$

هو مجال الدالة

$$D_f = \{x | x \in \mathbb{R}, \frac{3}{4} < x < \frac{4}{3}\}$$

$$4x - a > 0 \Rightarrow x > \frac{a}{4}, b - 3x > 0 \Rightarrow x < \frac{b}{3} \rightarrow D = [\frac{a}{4}, \frac{b}{3}]$$

$$\text{MRN} \frac{a}{4} = 2 \rightarrow a = 8, \frac{b}{3} = 2 \Rightarrow b = 6 \Rightarrow \frac{a}{4} = 2, \frac{b}{3} = 2$$



$$\text{جواب} \rightarrow x^4 - 13x^2 + 36 = (x^2 - 4)(x^2 - 9) \Rightarrow \underbrace{(x-2)}_{+2} \underbrace{(x+2)}_{-2} \underbrace{(x-3)}_{+3} \underbrace{(x+3)}_{-3}$$

$$+ 9 - 9 + 9 + 9 +$$

$$\text{LWB} \Rightarrow \frac{x^3 - 2x^2 - 2x + 9}{x^3 - x - 9} \mid \frac{x-1}{x^3 - x - 9}$$

$$\begin{array}{r} -x^2 - 2x + 4 \\ +x^2 - x \end{array}$$

$$(x+y)(x-y)(x-1)$$

$$-y^2 + y^2 + 1$$

$$(-\infty, x) \cup [-r_2, -1) \cup [1, r_2) \cup [r_2, +\infty) \leftarrow D_f$$

$$DF = \{x \mid x \in \mathbb{R}, 1 \leq x \leq +\infty\}$$

$$DF = \{x \mid x \in \mathbb{R}, 1 \leq x \leq +\infty\}$$



$$\text{الف) } y = \sqrt{\frac{x+1}{|x-3|}} + \sqrt{\frac{9-x}{x^2+2x+4}} \Rightarrow x+1 \geq 0 \Rightarrow x \geq -1$$

$x \neq 3$ $\rightarrow$ $\Delta \geq 0$

$$9-x \geq 0 \Rightarrow x \leq 9$$

$$x \geq -1 \cap x \neq 3 \cap x \leq 9 \Rightarrow x \in [-1, 9] \setminus \{3\}$$

$$D_f = \{x \mid x \in \mathbb{R}, x \in [-1, 9] \setminus \{3\}\}$$

$$\text{ب) } y = \sqrt{[x]-4} + \sqrt{2-[x]} \Rightarrow [x]-4 \geq 0 \Rightarrow [x] \geq 4 \Rightarrow [x] \in [4, +\infty)$$

$$2-[x] \geq 0 \Rightarrow [x] \leq 2 \Rightarrow (-\infty, 2] \Rightarrow [4, +\infty) \cap (-\infty, 2] = \emptyset$$

لا يوجد حل