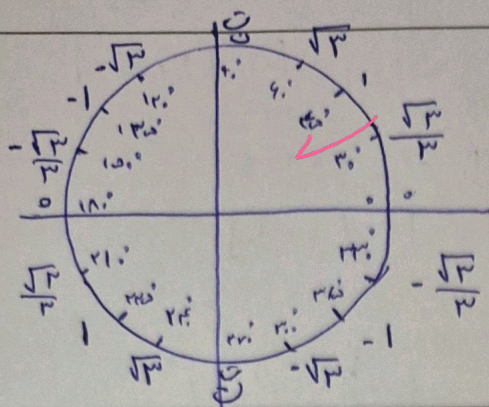




الف) $\frac{1}{2} + (-1) + 2 \times (-1) = -3 + \frac{1}{2} = -\frac{5}{2}$

ب) $\frac{\sqrt{3}}{2} + \frac{\sqrt{3}}{2} - 3 \left(-\frac{\sqrt{3}}{2}\right) = \frac{5\sqrt{3}}{2}$

ج) $-\frac{\sqrt{3}}{2} + 3 \times \frac{\sqrt{3}}{2} - 2 \left(-\frac{\sqrt{3}}{2}\right) = \frac{4\sqrt{3}}{2}$

د) $1 + 1 = 2$

$a^2 + 4a = 2a + a + 2 \rightarrow a^2 + a - 2 = 0 \quad (a+2)(a-1) = 0 \quad a_2 = -2 \text{ و } 1$

$x \geq 1 \rightarrow x^2 + 4x$
 $x \leq 1 \rightarrow 2x + 2$
 $f(1) = 2 + 4 = 6$

$x+1 \geq 2 \rightarrow x \geq 1$
 $x+1 \leq -2 \rightarrow x \leq -3$
 $-3 \leq x \leq -1 \rightarrow a+2x$
 $a-4 = 18-b$
 $a+b = 22$

الف) $x^2(x-4) \neq 0$
 $D: \mathbb{R} - \{0, 4\}$

ب) $2x^2 + 4x^2 + 2x + 4 \neq 0$

$x \neq -2$

$D: \mathbb{R} - \{-2\}$

$x^2(2x+4) + 2x+4 = (2x+4)(x^2+1) \neq 0$

$$\begin{aligned} \text{الف)} \quad x^2 - 1 > 0 \quad x^2 > 1 &\rightarrow \frac{1}{x-1} + \frac{1}{x+1} \\ x - 2 > 0 \quad (x > 2) &\Rightarrow \text{انواع} \rightarrow \boxed{x \geq 2} \\ D: [2, +\infty) \end{aligned}$$

$$\begin{aligned} \text{ب)} \quad 4 - 3x > 0 \quad x < \frac{4}{3} \\ 4x - 2 > 0 \quad x > \frac{1}{2} &\Rightarrow \text{انواع} \rightarrow \frac{1}{4} < x \leq 2 \\ D: \left[\frac{1}{4}, 2\right] \end{aligned}$$

عبادت در مفرغ بنایه منبره!

پاسخ صافه صافه شد

$$\begin{aligned} 4x - a > 0 \quad x > \frac{a}{4} \\ b - 3x > 0 \quad x < \frac{b}{3} \end{aligned} \quad \left\{ \begin{aligned} \frac{a}{4} &= \frac{b}{3} = 2 \Rightarrow \frac{b}{a} = \frac{1}{2} \end{aligned} \right.$$

صورت + مجموع فراب منبر

$$x^3 - 2x^2 - 4x + 4 = (x-1)(x^2 - x - 4)$$

مجموع فراب منبره

$$x^3 + 2x^2 - 4x - 4 = (x+1)(x^2 + x - 4)$$

$$\begin{aligned} \text{الف)} \quad \frac{(x-3)(x+2)}{(x-2)(x+2)(x-3)(x+3)} &\geq 0 \quad \frac{-3}{+} \frac{-2}{-} \frac{2}{-} \frac{3}{+} \\ x^2 - 13x + 24 = (x-4)(x-9) &\Rightarrow \boxed{x \geq 2} \quad \boxed{x \geq 3} \\ D: (-\infty, 2) \cup (2, 3) \cup (3, +\infty) \end{aligned}$$

$$\begin{aligned} \text{ب)} \quad \frac{(x-1)(x-3)(x+2)}{(x+3)(x-2)(x+1)} &\geq 0 \quad \frac{-1}{+} \frac{-3}{-} \frac{-2}{+} \frac{1}{-} \frac{2}{-} \frac{3}{+} \\ D: (-\infty, 1) \cup (1, 2) \cup (2, 3) \cup (3, +\infty) \end{aligned}$$

$$\begin{aligned} \text{الف)} \quad 2[x] - 4 > 0 \quad [x] > 2 \quad x > 2 \quad D: [2, +\infty) \\ \text{ب)} \quad 2[x] - a > 0 \quad [x] > \frac{a}{2} \quad x > 3 \quad D: [3, +\infty) \end{aligned}$$

$$\begin{aligned} \text{الف)} \quad \frac{x+1}{|x-3|} &\geq 0 \quad x \geq -1 \quad \boxed{x \neq 3} \\ \frac{4-x}{(x+2)^2} &\geq 0 \quad 4-x > 0 \quad \boxed{x < 4} \\ D: [-1, 4] - \{3\} \end{aligned}$$

$$\begin{aligned} \text{ب)} \quad [x] > 2 \quad x > 2 \\ 2 - [x] > 0 \quad [x] < 2 \quad x < 3 \end{aligned} \quad \left\{ \begin{aligned} \text{انواع} &= \emptyset \\ D &= \emptyset \end{aligned} \right.$$

عبارت زیر را سیمال باید نامتنی و عبارت صفح مختلف صفر باشد ...
 ب-4) $y = \frac{\sqrt{4-3n}}{\sqrt{4n-2}}$

$$4-3n \geq 0 \rightarrow n \leq 2$$

$$4n-2 > 0 \rightarrow n > \frac{1}{2}$$

$$\xrightarrow{\wedge} \frac{1}{2} < n \leq 2 \rightarrow D_f = \left(\frac{1}{2}, 2\right]$$

الف-10) $y = \sqrt{\frac{n+1}{|n-4|}} + \sqrt{\frac{4-n}{n^2+2n+2}}$

فقط مقدریت مفروضه!

$$\begin{cases} \frac{n+1}{|n-4|} \geq 0 \rightarrow n \geq -1, n \neq 4 \text{ I} \\ \frac{4-n}{n^2+2n+2} \geq 0 \rightarrow n \leq 4 \text{ II} \end{cases}$$

لح ۵۰ ر محواره مثبت و بدون مقدریت

$$\xrightarrow{I \cap II} D_f = [-1, 4) \cup (4, 4] \subseteq [-1, 4] - \{4\}$$