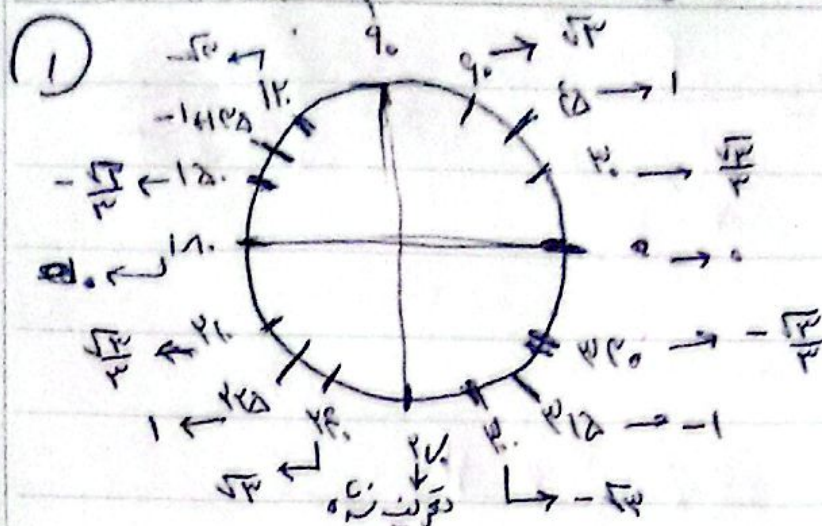




(٧) (الف) $\frac{1}{2} + (-1) + 2x - 1 = -2 + \frac{1}{2} = -\frac{3}{2}$

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

ج) $-\frac{\sqrt{3}}{2} + 3x + \frac{\sqrt{3}}{2} - 2(-\frac{\sqrt{3}}{2}) = 2\frac{\sqrt{3}}{2} + 2\frac{\sqrt{3}}{2} = 4\frac{\sqrt{3}}{2}$

د) $\cos(0) + \sin(2\frac{1}{2}) = 1 + 1 = 2$

(٢) $a^2 + \epsilon a = 2a + a^2 \rightarrow a^2 + a - 2 = 0 \quad (a+2)(a-1) = 0$
 $x > 1 \quad x + \epsilon x \xrightarrow{x=1} \boxed{1 + \epsilon = 2} \quad a = 1 \leftarrow a > 0$

(٣) $|x+1| > 2 \rightarrow x+1 > 2 \rightarrow x > 1 \quad x+1 < -2 \rightarrow x < -3$
 $\begin{cases} x^2 - b & x > 1 \quad x^2 - b \\ a + 2x & -3 < x < -1 \end{cases} \xrightarrow{x=-3} 11 - b = a - 4$

$\rightarrow \boxed{a+b = 11+4 = 15}$

$$\textcircled{a} \text{ حل } \frac{1}{n^2 - 4n} = \frac{1}{n^2(n-4)}$$

$\downarrow \quad \downarrow$
 $0 \quad 4$



$$D_f = \mathbb{R} - \{0, 4\}$$

$$\begin{aligned} \rightarrow) \frac{1}{n^2 + 2n + 1} &= \frac{1}{(n+1)^2} = 0 \\ n^2 + 2n + 1 &\rightarrow n(n+1) + n+1 = 0 \\ &\rightarrow (n+1)(n+1) = 0 \\ D_f = \mathbb{R} - \{-1\} &\leftarrow n = -1 \leftarrow n+1 = 0 \leftarrow \begin{matrix} -0 \\ \downarrow \\ \text{ممنوع} \end{matrix} \end{aligned}$$

$$\textcircled{4} \left. \begin{aligned} x^2 - 1 > 0 &\rightarrow x > 1 \text{ or } x < -1 \\ x - 2 > 0 &\rightarrow x > 2 \end{aligned} \right\} \rightarrow x > 2 \quad D_f = [2, +\infty)$$

$$\rightarrow) \left. \begin{aligned} 4 - 3x > 0 &\rightarrow x < \frac{4}{3} \\ x - 2 > 0 &\rightarrow x > 2 \end{aligned} \right\} \rightarrow D_f = \left(\frac{1}{2}, 2\right]$$

$$\textcircled{v} \left. \begin{aligned} 4x - a > 0 &\rightarrow x > \frac{a}{4} \\ b - 2x > 0 &\rightarrow x < \frac{b}{2} \end{aligned} \right\} \begin{matrix} \text{نموذج} \\ \rightarrow \\ \text{نموذج} \\ \text{نموذج} \\ \text{نموذج} \end{matrix} \rightarrow \frac{b}{a} = \frac{1}{4} = \frac{1}{2}$$

$\frac{b}{2} = \frac{a}{4}$

$$\textcircled{A} \text{ حل } = \sqrt{\frac{(n-2)(n+2)}{(n^2-4)(n^2-9)}} \xrightarrow{n=2} \frac{n^2-4}{n^2-4} = 1$$

$\downarrow \quad \downarrow$
 $x = -2 \quad x = 3$

$D_f = (-\infty, -2) \cup (2, +\infty) - \{3\}$

Date : / /



$$\therefore [n] \succ \varepsilon, [n] \prec \varepsilon \xrightarrow{\text{औसत}} D_f = \emptyset$$