

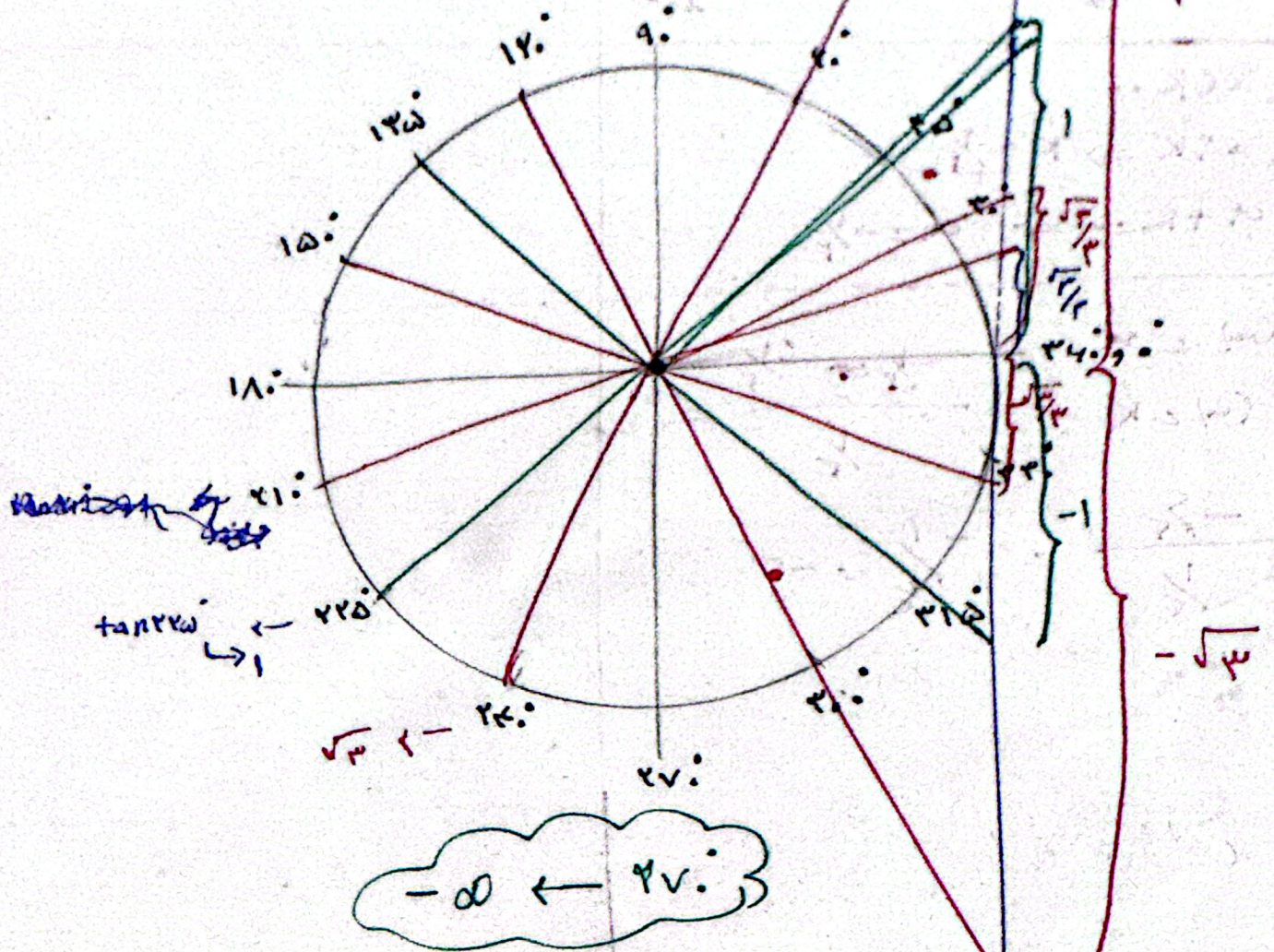
سأره تلافی : ۲

فصل ۱ یا زدم در حد A

440

سوال 1: ۲۷

$+\infty \leftarrow 9.$



$$(a + rn)$$

$$-\frac{1}{2} \times 1 = -1$$

$$\sqrt{1}$$

20

$$\text{سؤال ٢) } \sin \frac{\pi}{4} + \cos \frac{\pi}{4} + r \tan \frac{\pi}{4} = \frac{1}{\sqrt{2}} + (-1) + (-\sqrt{2}) = \frac{1 - \sqrt{2} - \sqrt{2}}{\sqrt{2}} = \frac{1 - 2\sqrt{2}}{\sqrt{2}}$$

$$\text{ب) } -\cos \frac{\pi}{4} + \sin \frac{\pi}{4} - r \sin \frac{\pi}{4} = \frac{-\sqrt{2}}{\sqrt{2}} + \frac{\sqrt{2}}{\sqrt{2}} - \frac{\sqrt{2}}{\sqrt{2}} = \frac{-\sqrt{2}}{\sqrt{2}}$$

$$\text{ج) } \cot \frac{\pi}{4} + r \cot \frac{\pi}{4} - r \tan \frac{\pi}{4} = 1 + r - r = 1$$

$$\text{د) } \frac{\sqrt{2}}{\sqrt{2}} + \sqrt{2} = \frac{\sqrt{2} + \sqrt{2}}{\sqrt{2}} = \frac{2\sqrt{2}}{\sqrt{2}} = 2$$

$$\text{ه) } \cos(\sin \frac{\pi}{4}) + \sin(\pi \cos \frac{\pi}{4}) = 1 + 1 = 2$$

سوال (۳)

$$x^2 + 2x = 2x + a + x - x = a$$

$$a^2 + 2a = 2a + a + 2$$

$$a^2 + a - 2 = 0$$

$$(a+2)(a-1) = 0$$

$a = -2$
 $a = 1$

$a > 0 \rightarrow a = 1$
 $n = 1$

جواب (۵)
 $1 + \frac{1}{x} = 2$
 $\frac{1}{x} = 1$
 $x = 1$

$n = -2$

$1n - b = a - 4$

$2f = a + b$

سوال (۴)

الف) $\frac{1}{x^3 - 2x^2} \neq 0 \rightarrow x^2(x-2) \neq 0$

$x \neq 0, 2$

سوال (۵)
 $R = \{0, 2\}$

ب)

$2x^3 + 2x^2 + 2x + 2 \neq 0$
 $2x^2(x+1) + 2(x+1) \rightarrow (x+1)(2x^2+2) \neq 0$

$\rightarrow R = \{-1, 2\}$

الف) $\sqrt{x^2-1} + \sqrt{x-2} \rightarrow x^2-1 > 0 \rightarrow x^2 > 1 \rightarrow x > 1$
 $x-2 > 0 \rightarrow x > 2 \rightarrow x \geq 2 \rightarrow (2, +\infty)$

سوال (۴)

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

$\rightarrow (\frac{3}{4}, \frac{4}{3})$

$\sqrt{4x-a} + \sqrt{b-3x}$
 $b-4 = 0 \rightarrow b = 4$
 $4(x-\frac{a}{4}) = 0 \rightarrow x = \frac{a}{4}$
 $\frac{b}{a} = \frac{4}{14} = \frac{1}{4}$

سوال (۷) اشتراک این دو دایره $\{2, 3\}$

سؤال 1

الف) $\frac{x^2 - x - 2}{x^2 - 13x^2 + 12} > 0$ $(x-3)(x+2)$
 $(x^2-4)(x^2-9)$
 $x = \pm 2$ $x = \pm 3$
 $(-3, -2) \cup (2, +\infty)$

ب) $\frac{x^2 - 2x^2 - 5x + 4}{x^2 + 2x^2 - 5x - 2} > 0$ $x-1 \rightarrow x=1$
 $x = -1$

x	1	-1	2	3
1	-2	-5	4	
1	-1	-4	-6	
				0

 $x^2 - x - 4)(x-1)$
 $(x^2-4)(x+2)$
 $(-2, -1) \cup [-1, 2) \cup [2, +\infty)$

ج) $\frac{x^2 - x - 4}{x^2 + 2x^2 - 5x - 2} > 0$ $x-1$
 $x = -1$

x	1	-1	2	3
1	-2	-5	4	
1	-1	-4	-6	
				0

 $(x^2 - x - 4)(x+1)$
 $(x^2-4)(x+2)$
 $(-2, -1) \cup [-1, 2) \cup [2, +\infty)$

سؤال 9

الف) $\sqrt{x^2 - 4} \rightarrow x^2 - 4 > 0$ $x^2 > 4$
 $\{x\} > 2 \rightarrow [2, +\infty)$
 $\sqrt{x^2 - 4} \rightarrow x^2 - 4 > 0$
 $x^2 > 4 \rightarrow \{x\} > 2 \rightarrow [2, +\infty)$

سؤال ١٢

الف) $\frac{n+1}{1n-31} > 0 \Rightarrow n+1 > 0 \Rightarrow n > -1$

صحيح
 $\frac{1}{1n-31} > 0 \Rightarrow 1n-31 > 0 \Rightarrow n > 31$

$\frac{4-n}{n^2+2n+4} > 0 \Rightarrow 4-n > 0 \Rightarrow 4 > n$

$\uparrow n$
 $[-1, 4] - \{31\}$

$\Delta = 4 - 14 = -10 < 0 \Rightarrow$ صحيح

ب) $[n] < 0 \Rightarrow [n] > 4$, $4 - [n] > 0 \Rightarrow 4 > [n]$
 $\downarrow$
 $[4, +\infty)$ $\longleftrightarrow$ $(-\infty, 4)$

$\emptyset < =$