

سوال ①: (۲) بزرگ بدون اسم صفر کافا مر شود مستند

$$\frac{x+y}{2} = \sqrt{xy} \rightarrow x+y - 2\sqrt{xy} = 0$$

$$\hookrightarrow (\sqrt{x} - \sqrt{y})^2 = 0 \rightarrow \sqrt{x} = \sqrt{y} \rightarrow x = y$$

$$x_1 = x_r \rightarrow 2x_1^r + 2x_1 - 1 = 2x_r^r + 2x_r - 1$$

$$\hookrightarrow x_1^r = x_r^r \rightarrow x_1 = x_r$$

$$xy^r + 2x - y^r - 2y = 0 \quad x(y^r + 2) = y^r + 2y$$

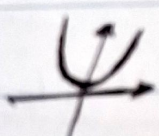
$$\hookrightarrow x = y$$

$$x = \frac{\pi}{2} \rightarrow \frac{\pi}{2} \cos y = y \cos \frac{\pi}{2} \rightarrow \frac{\pi}{2} \cos y = 0 \quad y = \pm \frac{\pi}{2}$$

سوال ②:

$$y \geq 0 \rightarrow x^2 = y \quad \Rightarrow \quad |y| + x^2 = 2y \rightarrow x^2 = 2y - |y|$$

$$y < 0 \rightarrow x^2 = 3y \quad \Rightarrow \quad 2y - |y| \geq 0 \Rightarrow 2y \geq |y| \quad (۲) \Rightarrow y \geq 0$$

نقطه شکستگی اول قابل قبول است $y = x^2 \rightarrow$  تابع است

$$[y] + [x] = 1 \xrightarrow{x=1} [y] = 0 \rightarrow y \in [0, 1)$$

سوال ③:

$$f(x) = \begin{cases} 2x^2 - 6 & |x-1| \geq 2 \Rightarrow x \geq 3 \cup x \leq -1 \\ a + bx & 0 \leq x \leq 2 \end{cases} \quad (۲)$$

تابع است

$$f(2) = f(2) \rightarrow a + 2 = 11 - 6 \Rightarrow a + b = 11 \quad \checkmark$$

$$f(x) = \sqrt{a - bx - x^2} \Rightarrow a - bx - x^2 \geq 0 \quad \text{سوال ١٥} \quad (1, 2)$$

$$\Rightarrow x \in [a, b] \Rightarrow p = \frac{c}{a} = -a \rightarrow b = -1 \quad \checkmark$$

$$s = \frac{-b}{a} = -b \rightarrow a = -b = 2 \quad a = 2$$

$$a + b = 1 \quad \checkmark$$

$$a = 0 \quad bx + c = 0 \Rightarrow \frac{-c}{b} = r$$

$$-b > 0 \Rightarrow r|a + c| - r|b| = r \times 0 - rb + rb = b \quad \checkmark$$

سوال ٢٠ (٢)

$$\frac{rm + r + am + ab}{m + ab} \Rightarrow \frac{(r+a)m + r + ab}{m + b} \quad \text{سوال ٢١}$$

$$\Rightarrow r + a = 0$$

$$a = -r$$

$$r + b = 0$$

$$b = -r \quad \checkmark$$

(٢)

سوال ٢٢

$$y = \sqrt{x(x-1)(x+1)} \quad \begin{array}{c} -1 \quad 0 \quad 1 \\ - \quad + \quad - \quad + \end{array} \quad D_f = [-1, 0] \cup [1, +\infty) \quad \text{الف}$$

$$|n| > 1 \Rightarrow \begin{cases} n > 1 \\ n < -1 \end{cases} \Rightarrow x \in (-\infty, -1) \cup (1, +\infty) \quad \text{ب} \quad (٢)$$

سوال ٢٣

$$|n| \neq [n] \Rightarrow D_f = \mathbb{R} - \mathbb{N} \quad \text{الف} \quad (٢)$$

$$\sqrt{y} = 4 - \sqrt{x} \Rightarrow 4 > \sqrt{x} \Rightarrow 16 > x \Rightarrow x \in [0, 16] \quad \text{ب} \quad (٢)$$

$$\left[2n - \frac{1}{r}\right] + \left[2n - \frac{1}{r} + r\right] > 0 \Rightarrow r\left[2n - \frac{1}{r}\right] + r \times 2 \quad \text{١} \quad (٢)$$

$$\left[2n - \frac{1}{r}\right] > -1 \Rightarrow 2n - \frac{1}{r} > 0 \quad n > \frac{1}{r} \quad \checkmark$$

Date _____

Subject _____

$$\ln \log (x_n - a) > 0$$

$$\log x_n - a \leq 1$$

$$x \leq \frac{\ln + a}{r}$$

$$\left\{ \begin{array}{l} x_n - a > 0 \Rightarrow x > \frac{a}{r} \end{array} \right. \quad \text{سوال (1)}$$

$$\Rightarrow \frac{a}{r} \leq x \leq \frac{\ln + a}{r} \quad (2)$$

$$\frac{\ln + a}{r} = \frac{a}{r} = \Delta \quad \checkmark$$

۴- دامنه، بازه: $[a, b]$ است یعنی a و b ، ریشه های معادله $x^2 - bx + a = 0$ بودن پس:

$$P = \frac{c}{a} = -a = ab \xrightarrow{a \neq 0} b = -1 \quad \star \quad \rightarrow \boxed{a + b = 1}$$

$$S = -\frac{b}{a} = -b = a + b \rightarrow a = -2b \xrightarrow{\star} a = 2$$