

نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره ۲۸ کلاس >

$$x^2 + 2x = ax - 4 \rightarrow x^2 + (2-a)x + 4 = 0 \xrightarrow{\Delta} (2-a)^2 - 16$$

$$2-a = \pm 4 \begin{cases} 2-a = 4 \rightarrow a = -2 \checkmark \\ 2-a = -4 \rightarrow a = 6 \checkmark \end{cases} \quad (2)$$

$$f(1) = \frac{1+a}{2-b} \xrightarrow{\substack{a=1 \\ b=-1}} \frac{1+1}{2-(-1)} = \frac{2}{3} = \frac{4}{6}$$

$$f(2) = \frac{f+a}{f-b} = 2 \rightarrow f+a = 12 - 2b \checkmark \quad (2)$$

$$g(2) = f+b = 2 \rightarrow 12+2b = 4 \rightarrow 12 = 4 - 2b \xrightarrow{+2} 18 = 12 - 2b$$

$$\Rightarrow f+a = 18 \Rightarrow \underline{a=11}, \underline{b=-1}$$

$$f(-1) \rightarrow 2x^2 + ax + b \rightarrow 2 - a + b = 0 \rightarrow \underline{b = a - 2} \xrightarrow{a=9} \underline{b = -1}$$

$$f(4) \rightarrow 2x^2 + ax + b \rightarrow 32 + 4a + b = 0 \rightarrow 32 + 4a = 0 \rightarrow \underline{a = -8}$$

$$f(1) \rightarrow \frac{8}{2-4-1} = \frac{-8}{-1} = 8 \quad (2)$$

$$\begin{aligned} (-1) \rightarrow -2 - a + b = 0 \quad a^2 + 14b = 0 \quad 4f + 14a + a^2 = 0 \\ (a+1)^2 = 0 \rightarrow a = -1 \\ b = -4 \quad a+b = \underline{-1} \checkmark \quad (2) \end{aligned}$$

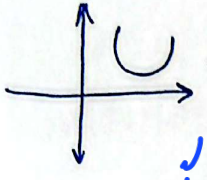
$$\begin{aligned} m \neq 1 \rightarrow 1 + m + 1 > 0 \rightarrow m > -2 \rightarrow (+\infty, -2] \checkmark \\ x=1 \rightarrow \text{تنگنا} \rightarrow \text{محدود} \\ \textcircled{1} x^2 + mx + 1 \rightarrow \text{ریشه حقیقی نداشت} \quad (I) \cup (II) \rightarrow -2 < m < 2 \\ \Delta < 0 \rightarrow m^2 - 4 < 0 \rightarrow m^2 < 4 \rightarrow \underline{-2 < m < 2} \quad (I) \\ \textcircled{2} x^2 + mx + 1 \rightarrow \text{ریشه حقیقی داشت} \\ \begin{cases} \Delta = 0 \rightarrow m^2 - 4 = 0 \rightarrow m = \pm 2, x = \frac{-m}{2} = 1 \rightarrow \underline{m = -2} \quad (II) \\ x = \frac{-b}{2a} = 1 \end{cases} \end{aligned}$$

$$\epsilon - \frac{1}{n^2} > 0 \quad \epsilon > \frac{1}{n^2} \rightarrow \epsilon > \frac{1}{|n|} \rightarrow \epsilon |n| > 1 \rightarrow |n| > \frac{1}{\epsilon}$$

$$\rightarrow n > \frac{1}{\epsilon}$$

$$n \leq -\frac{1}{\epsilon}$$

$$\mathbb{R} - \left(\frac{1}{\epsilon}, -\frac{1}{\epsilon} \right)$$

$$m \epsilon^2 + \epsilon m n + 1 > 0$$


$\Delta < 0$

$$f(m) - f(m) < 0$$

$$f(m) = m(m-1)$$

m	0	1
	+	-
	+	+

$$m \in [0, 1]$$

$R \text{ in } b \leftarrow f(n) = 1 \leftarrow \text{in } m = 0, 1$

$$\left(\frac{1}{\epsilon}\right) \rightarrow \epsilon + k = \frac{1}{\epsilon} \Rightarrow k = 0$$

$$\left(\frac{1}{\epsilon}\right) \rightarrow \frac{\epsilon n^2 - 1}{\epsilon n - 1} \xrightarrow{n \neq 1} a = \frac{1}{\epsilon}$$

$$a + k = \frac{1}{\epsilon} \quad \checkmark$$

$$\epsilon a n + \epsilon \xrightarrow{-\frac{\epsilon}{n}} -\epsilon a + \epsilon = -\epsilon + b \rightarrow -\epsilon a + \epsilon = b$$

$$\epsilon n + b = \epsilon n - \epsilon \quad \underline{b = -\epsilon} \quad \text{and} \quad \underline{a = 1}$$

$$a - b = 2$$

$$\epsilon a^2 + \epsilon a = \epsilon \rightarrow a^2 + a - 1 = 0 \rightarrow \underline{a = 1} \quad \text{and} \quad \underline{a = -2}$$