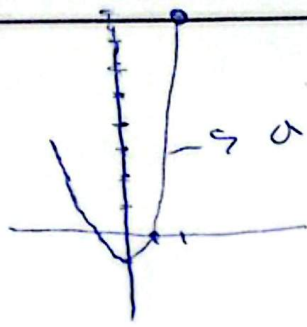


نام و نام خانوادگی <u>پاسخنامه تشریحی تکلیف شماره ۱</u> کلاس <u>پانزدهم</u>	
۱	$\frac{1}{3} = \frac{15}{45} \rightarrow \frac{9}{45} \rightarrow \frac{3}{15} \rightarrow \frac{1}{5}$ $\frac{2}{3} = \frac{10}{15} \rightarrow \frac{9}{15} \rightarrow \frac{3}{5}$ $\frac{3}{4} = \frac{7.5}{10} \rightarrow \frac{7}{10}$ الف) $\frac{1}{5} \rightarrow \frac{2}{10} \rightarrow \frac{3}{10} \rightarrow \frac{4}{10} \rightarrow \frac{5}{10} \rightarrow \frac{6}{10} \rightarrow \frac{7}{10} \rightarrow \frac{8}{10} \rightarrow \frac{9}{10} \rightarrow \frac{10}{10} \rightarrow 1$ ب) $\frac{1}{5} \rightarrow \frac{2}{10} \rightarrow \frac{3}{10} \rightarrow \frac{4}{10} \rightarrow \frac{5}{10} \rightarrow \frac{6}{10} \rightarrow \frac{7}{10} \rightarrow \frac{8}{10} \rightarrow \frac{9}{10} \rightarrow \frac{10}{10} \rightarrow 1$ ج) $\frac{1}{5} \rightarrow \frac{2}{10} \rightarrow \frac{3}{10} \rightarrow \frac{4}{10} \rightarrow \frac{5}{10} \rightarrow \frac{6}{10} \rightarrow \frac{7}{10} \rightarrow \frac{8}{10} \rightarrow \frac{9}{10} \rightarrow \frac{10}{10} \rightarrow 1$ د) $\frac{1}{5} \rightarrow \frac{2}{10} \rightarrow \frac{3}{10} \rightarrow \frac{4}{10} \rightarrow \frac{5}{10} \rightarrow \frac{6}{10} \rightarrow \frac{7}{10} \rightarrow \frac{8}{10} \rightarrow \frac{9}{10} \rightarrow \frac{10}{10} \rightarrow 1$
۲	الف) $\frac{1}{5} \rightarrow \frac{2}{10} \rightarrow \frac{3}{10} \rightarrow \frac{4}{10} \rightarrow \frac{5}{10} \rightarrow \frac{6}{10} \rightarrow \frac{7}{10} \rightarrow \frac{8}{10} \rightarrow \frac{9}{10} \rightarrow \frac{10}{10} \rightarrow 1$ ب) $\frac{1}{5} \rightarrow \frac{2}{10} \rightarrow \frac{3}{10} \rightarrow \frac{4}{10} \rightarrow \frac{5}{10} \rightarrow \frac{6}{10} \rightarrow \frac{7}{10} \rightarrow \frac{8}{10} \rightarrow \frac{9}{10} \rightarrow \frac{10}{10} \rightarrow 1$ ج) $\frac{1}{5} \rightarrow \frac{2}{10} \rightarrow \frac{3}{10} \rightarrow \frac{4}{10} \rightarrow \frac{5}{10} \rightarrow \frac{6}{10} \rightarrow \frac{7}{10} \rightarrow \frac{8}{10} \rightarrow \frac{9}{10} \rightarrow \frac{10}{10} \rightarrow 1$ د) $\frac{1}{5} \rightarrow \frac{2}{10} \rightarrow \frac{3}{10} \rightarrow \frac{4}{10} \rightarrow \frac{5}{10} \rightarrow \frac{6}{10} \rightarrow \frac{7}{10} \rightarrow \frac{8}{10} \rightarrow \frac{9}{10} \rightarrow \frac{10}{10} \rightarrow 1$
۳	الف) $A = \{1, 2, 3\}$ $B = \{2, 3, 4\}$ $A \cap B = \{2, 3\}$ ب) $A \cup B = \{1, 2, 3, 4\}$ ج) $A \setminus B = \{1\}$ د) $B \setminus A = \{4\}$
۴	الف) $m^2 = m+2 \rightarrow m^2 - m - 2 = 0 \rightarrow (m-2)(m+1) = 0$ ب) $m^2 = m+2 \rightarrow m^2 - m - 2 = 0 \rightarrow (m-2)(m+1) = 0$ ج) $m^2 = m+2 \rightarrow m^2 - m - 2 = 0 \rightarrow (m-2)(m+1) = 0$
۵	الف) $a^2 = 3a - 2 \rightarrow a^2 - 3a + 2 = 0 \rightarrow (a-2)(a-1) = 0$ ب) $a^2 = 3a - 2 \rightarrow a^2 - 3a + 2 = 0 \rightarrow (a-2)(a-1) = 0$ ج) $a^2 = 3a - 2 \rightarrow a^2 - 3a + 2 = 0 \rightarrow (a-2)(a-1) = 0$



$$\frac{x_2 - x_1}{x_2 + x_1} = \frac{1}{1} \rightarrow a = 1$$

$$\begin{cases} x^2 - 1 \\ ax + b \end{cases} \xrightarrow{\text{جانبار}} \begin{cases} x^2 - 1 = 0 \\ 1 + b = 0 \end{cases} \rightarrow \begin{cases} b = -1 \end{cases}$$

$$\textcircled{A} \text{ با بر مساوی طرف } \rightarrow \frac{1}{\omega} - \frac{1}{\omega} = \frac{1}{\omega} - \frac{1}{\omega} \rightarrow \omega \frac{1}{\omega} = 1 \rightarrow \boxed{\frac{1}{\omega} = 1}$$

معادله آنگار تابع بودی چون $\rightarrow \textcircled{B} \rightarrow \textcircled{C} \rightarrow \textcircled{D} \rightarrow \textcircled{E}$ (الف که سنی)

تابع است تابع سنی

α تابع سنی $\rightarrow \textcircled{A} \rightarrow \textcircled{B} \rightarrow \textcircled{C} \rightarrow \textcircled{D} \rightarrow \textcircled{E}$ (ب که سنی)

تابع α $\rightarrow \textcircled{A} \rightarrow \textcircled{B} \rightarrow \textcircled{C} \rightarrow \textcircled{D} \rightarrow \textcircled{E}$ (ج که سنی)

$\rightarrow \textcircled{A} \rightarrow \textcircled{B} \rightarrow \textcircled{C} \rightarrow \textcircled{D} \rightarrow \textcircled{E}$ (د که سنی)

$\rightarrow \textcircled{A} \rightarrow \textcircled{B} \rightarrow \textcircled{C} \rightarrow \textcircled{D} \rightarrow \textcircled{E}$ (ه که سنی)

$$\begin{cases} \sqrt{x_1} = -x^2 + 2x - 1 \\ \sqrt{x_2} = -x^2 + 2x - 1 \end{cases} \rightarrow \sqrt{x_1} = \sqrt{x_2} \rightarrow x_1 = x_2 \text{ تابع}$$

$$\begin{cases} x_1^2 + y_1^2 = 0 \\ x_2^2 + y_2^2 = 0 \end{cases} \rightarrow \begin{cases} x_1^2 + y_1^2 = 0 \\ x_2^2 + y_2^2 = 0 \end{cases} \rightarrow \begin{cases} x_1 = 0, y_1 = 0 \\ x_2 = 0, y_2 = 0 \end{cases}$$

(الف) $\sin x = 0 \rightarrow \sin \pi = 0 \rightarrow \sin \pi = 0 \rightarrow \sin \pi = 0$

تابع است تابع سنی

(ب) $\sqrt{\frac{x}{y}} + \sqrt{\frac{y}{x}} = 1 \rightarrow \frac{x}{y} + \frac{y}{x} + 1 = 1 \rightarrow \frac{x}{y} + \frac{y}{x} = 0 \rightarrow \frac{x^2 + y^2}{xy} = 0$

$(x - y)^2 = 0 \rightarrow x = y$ تابع است