

نام و نام خانوادگی: کلاس: ۱ پاسخنانه تشریحی تکلیف شماره ۱ B

R صید ۹

الف) $n^2 - 5n + 4 \xrightarrow{\times 4} n^2 - 5n + 4 \rightarrow (n-4)(n+1) \Rightarrow R' = 4, -1$
 ب) $n^2 - 1n - 3 \xrightarrow{\times 3} n^2 - 1n - 9 \rightarrow (n-4)(n+1) \Rightarrow R' = 4, -1$
 ج) $n^2 - 5n - 12 \xrightarrow{\times 4} n^2 - 5n - 12 \rightarrow (n-4)(n+1) \Rightarrow R' = 4, -1$
 د) $n^2 - 5n - 12 \xrightarrow{\times 4} n^2 - 5n - 12 \rightarrow (n-4)(n+1) \Rightarrow R' = 4, -1$

الف) $n^2 - 5n - 12 \Rightarrow (n-4)(n+1) \Rightarrow R = 4, -1$
 ب) $n^2 + 5n + 3 \Rightarrow R_1 = -1, R_2 = \frac{3}{4} = -\frac{3}{4}$
 ج) $n^2 + 5n + 3 \Rightarrow \Delta = 25 - 4(3) = -1, \Delta < 0 \Rightarrow$ ریشه حقیقی ندارد
 د) $n^2 + 5n - 2 \Rightarrow \Delta = 25 - 4(-2) = 33 \Rightarrow R = \frac{-5 \pm \sqrt{33}}{2}$

$A \times B = \{(1,2), (1,3), (2,2), (2,3), (3,2), (3,3)\}$
 $B \times B = \{(2,2), (2,3), (3,2), (3,3)\}$
 $\Rightarrow \{(1,2), (1,3)\}$

الف) $m^2 = m + 2 \Rightarrow m^2 - m - 2 = 0 \Rightarrow m = -1, 2$
 if $m = 2 \Rightarrow (2,4), (2,1) \Rightarrow m \neq 2 \Rightarrow m = -1$
 ب) $m^2 = m + 2 \Rightarrow m = -1, 2$
 if $m = -1 \Rightarrow (-1,4), (-1,3) \Rightarrow m \neq -1$
 if $m = 2 \Rightarrow (2,4), (2,1) \Rightarrow m \neq 2$

$a^2 = 3a - 2 \Rightarrow a^2 - 3a + 2 = 0 \Rightarrow (a-2)(a-1) = 0$
 $\Rightarrow a = 2, 1$
 if $a = 1 \Rightarrow (1,1), (1,2) \Rightarrow a \neq 1$
 $\Rightarrow a = 2$

For $n=2 \Rightarrow r^2 = ra + b \Rightarrow 1 = 2a + b$
 For $n=1 \Rightarrow r - r^2 = a + b \Rightarrow a = -b$
 $\Rightarrow a \times b = 1 \times (-1) = \boxed{-1}$ $\checkmark$

$r_n - r^2 = r - r^2 \Rightarrow \Delta n = 1 \Rightarrow n = \frac{1}{a}$
 $\Rightarrow k = \frac{1}{a} = \underline{1, r}$ $\checkmark$

الف) $n=1 \Rightarrow y^2 - 4y = 0 \Rightarrow y = 0, \sqrt{4} \Rightarrow \textcircled{X}$
 ب) $n=0 \Rightarrow y = r^2, -r^2 \Rightarrow \textcircled{X}$
 ج) $n = \frac{\pi}{r} \Rightarrow y = 1, -1 \Rightarrow \textcircled{X}$
 د) $y^2 = -n^2 - r_{n-1} \Rightarrow y^2 = -(n+1)^2 \Rightarrow D_f = \{ -1 \}$
 For $n=-1 \Rightarrow y=0 \Rightarrow \checkmark$

الف) $r_{n+1} - r^2 = \sqrt{y_1}$ If $n_1 = n_r$ $\sqrt{y_1} = \sqrt{y_r} \Rightarrow y_1 = y_r \Rightarrow \checkmark$
 ب) $\Delta n_1 = y_1^2 + r y_1$ If $n_1 = n_r$ $y_1^2 + r y_1 = y_r^2 + r y_r$
 $\Delta n_r = y_r^2 + r y_r \Rightarrow y_1^2 - y_r^2 + r(y_1 - y_r) = 0$
 $\Rightarrow (y_1 - y_r)(y_1 + y_r + y_1 y_r + r) = 0$
 $\Rightarrow (y_1 - y_r)(y_1 + y_r + y_1 y_r + r) = 0$
 $y_1 = y_r \Rightarrow \checkmark$ $\leftarrow$ همواره مثبت است
 $\text{رابطه } \Delta \text{ منفی و } a \text{ نزدیک به صفر است}$

الف) If $n=0 \Rightarrow 0 \times (\text{Sing}) = y \times 0 \Rightarrow$ $\text{این مورد جواب نمی دهد}$
 ب) $\deg \sqrt{\frac{n}{y}} = a$ $\textcircled{X} \leftarrow$

$\Rightarrow \alpha + \frac{1}{\alpha} = 1 \Rightarrow \alpha^2 + 1 = \alpha \Rightarrow \alpha^2 - \alpha + 1 = 0$
 $\Rightarrow \sqrt{\frac{n}{y}} = 1 \Rightarrow \frac{n}{y} = 1 \Rightarrow n = y$ $\checkmark$
 $\textcircled{1} \alpha = 1 \leftarrow$
 For $n=y \neq 0$

(۱۰-ب) $\sqrt{\frac{x}{y}} + \sqrt{\frac{y}{x}} = 2$

این عبارت تنها زمانی به قدر است که $1 = \sqrt{\frac{x}{y}}$ باشد پس

$\sqrt{\frac{x}{y}} = 1 \leadsto \frac{x}{y} = 1 \leadsto x = y$ و $(x, y \neq 0)$

