

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره کلاس

$$B^2 = B \times B = \{(2,2), (2,3), (3,2), (3,3)\}$$

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

$$\rightarrow A \times B - B^2 = \{(1,2), (1,3)\}$$

الف) $m+2=m^2 \Rightarrow m^2-m-2=0 \Rightarrow (m+1)(m-2)=0$

$m=-1$ ✓
 $m=2$ ✗

ب) $m+2=m^2 \Rightarrow m^2-m-2=0 \Rightarrow (m+1)(m-2)=0$

$m=-1$ ✗
 $m=2$ ✗

نمونه‌ای صحیح می‌باشد

$n=1 \rightarrow x^2-1=ax+b \rightarrow 0=a+b \rightarrow a+b=0$

$n=2 \rightarrow ax+b=x^2 \rightarrow 2a+b=1$

$\Rightarrow \begin{cases} a+b=0 \\ 2a+b=1 \end{cases}$

$a=1$
 $b=-1$

$axb = -4x$

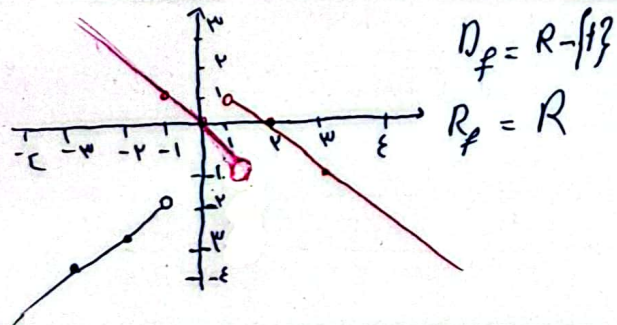
$n=k \rightarrow 2n-3=5-3n \rightarrow 2k-3=5-3k \rightarrow 5k=+8$

$k = \frac{+8}{5}$

$-x+2; x \geq 1$

$-x; -1 \leq x < 1$

$x-1; x < -1$



الف) $y''' + y'' + 1 = 0 \xrightarrow{x=0} y''' = -1 \rightarrow y'' = \frac{-1}{x} \rightarrow y' = \sqrt{\frac{-1}{x}}$

$$\rightarrow x^p + y^p - 2x - 11y + 10 = 0 \rightarrow (y^p - 11y + 9) + (x^p - 2x + 1) = 0 \rightarrow (y - 3)^p + (x - 1)^p = 0$$


 $(1, \frac{11}{p})$ nur $y - 3 \Rightarrow y = \frac{11}{p}$
 $x = 1 \leftarrow$

الف) $x \times \sin y = y \times \sin x \xrightarrow{n=0} 0 \times \sin y = y \times 0 \rightarrow 0$ ✗

$$\rightarrow \sqrt{\frac{x}{y}} + \sqrt{\frac{y}{x}} = r \Rightarrow \sqrt{\frac{x}{y}} = t \rightarrow \frac{1}{t} = r \cdot \frac{x}{t} \rightarrow t + 1 = r \cdot t \rightarrow (r-1) = \frac{1}{t} \rightarrow t = \frac{1}{r-1}$$

(الف) $\sqrt{\frac{n-1}{n-\mu}} + \sqrt{\frac{\mu-n}{\mu}} \rightarrow \frac{n-1}{n-\mu} \geq 0$
 $\rightarrow \frac{\mu-n}{\mu} \geq 0$

(ب) $n > 0$
 $y-1 \geq 0 \rightarrow y \geq 1$

نتيجة:
 $x \leq 1, x > \mu$
 $\mu < n \leq \mu$
 $0 < n \leq 1$

Teil) $\frac{\sqrt{x^2 - 5x + 4}}{\sqrt{x - \ln x + 1}} \rightarrow (x-4)(x-1) \geq 0$ $\begin{matrix} 1 & 4 \\ + & - \\ - & + \end{matrix} \rightarrow \begin{matrix} x \leq 1 \\ x \geq 4 \end{matrix}$
 $(x-1)(x-4) \geq 0$ $\begin{matrix} 1 & 4 \\ + & - \\ - & + \end{matrix} \rightarrow \begin{matrix} x \leq 1 \\ x \geq 4 \end{matrix}$

$$\hookrightarrow \sqrt{\frac{x^2 - 4x + 4}{x^2 - 10x + 4}} \rightarrow \frac{(x-4)(x-1)}{(x-1)(x-4)} \geq 0$$

$x \leq 1, x \geq 4$

$$\boxed{(-\infty, 1] \cup [4, +\infty)}$$

$x \leq 1, 4 \leq x, x \geq 4 \rightarrow (-\infty, 1] \cup (4, +\infty) \cup (-\infty, 1] \cup [4, +\infty)$

well) $\frac{\sqrt{\mu x^2 - \omega x + \mu}}{\sqrt{\mu x^2 - \omega x + \varepsilon}}$

$$\rightarrow \sqrt{\frac{K_{n+1}^p - \alpha_{n+1} + \epsilon}{K_{n+1}^p - \alpha_{n+1} - \epsilon}} \rightarrow \frac{K_{n+1}^p - \alpha_{n+1} + \epsilon}{K_{n+1}^p - \alpha_{n+1} - \epsilon} \geq 0 \rightarrow \frac{(\alpha - \mu)(K_{n+1})}{(n-1)(K_{n+1} - \epsilon)} \rightarrow \frac{-1}{+0} \quad \frac{1}{-0} \quad \frac{\epsilon}{+0}$$

$$m \leq \frac{1}{\mu} \vee 1 < \eta < \frac{\varepsilon}{\mu} \vee m \geq \mu$$