

۱۹, ۲۵

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

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

$$A \times B - B^T = \{(1, 1), (1, 2)\} \quad \checkmark$$

ا) $m^2 = m + 2 \quad m^2 - m - 2 = 0 \quad (m-2)(m+1) = 0 \quad m = 2, -1$

۲ غرض $\rightarrow (2, 2), (2, 1) \quad |m = -1| \quad \checkmark$

ب) $m^2 = m + 2 \Rightarrow m = 2, -1 \quad (-1, 2), (1, 2) \quad \checkmark$
 $\Rightarrow m = 2 \Rightarrow (2, 2), (2, 1) \quad \checkmark$

۱ باغ میانی عدد $\Rightarrow m = 1 \Rightarrow m^2 - 1 = a + b = 0$

۲ باغ میانی عدد $\Rightarrow m = 2 \Rightarrow m^2 = 2a + b = 1$

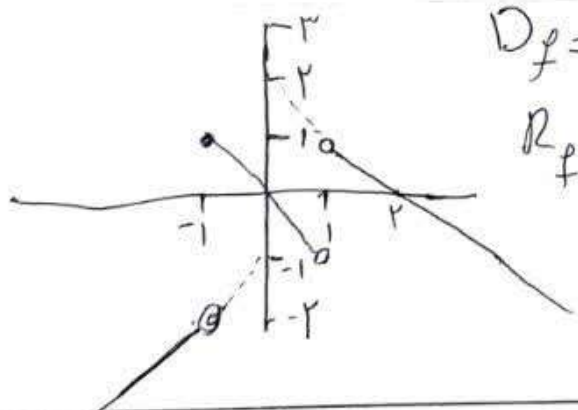
$$a \times b = 1 \times -1 = -1$$

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

$$a = 1, b = -1$$

هر دو ضلع باید برای عدد K یک عدد صحیح باشند $n = k \quad 2k - 2 = 1 - 3k$

$$5k = 3 \Rightarrow k = \frac{3}{5} = 1.4$$



$$D_f = \mathbb{R} - \{1\}$$

$$R_f = \mathbb{R} \cup (-1, 1]$$

$$R_f = (-\infty, 1]$$

الف) $xy^2 = -n^2 - 1$ $xy_1^2 = -n_1^2 - 1$ $n_1 = n_r \Rightarrow y_1 = y_r$
 $\Rightarrow xy_1^2 = xy_r^2 \Rightarrow y_1 = y_r \Rightarrow$ مطلوب ✓

ب) $n^2 + xy^2 - 2n - 12y + 10 = 0 \Rightarrow (n-1)^2 + (xy-3)^2 = 0 \Rightarrow$
 $\{n=1, y=\frac{3}{x}\} \Rightarrow$ مطلوب ✓

الف) $n = \frac{0}{1} \Rightarrow 0 \times \sin y = \sin 0$
مطلوب ✓

ب) $\sqrt{\frac{n}{y}} + \sqrt{\frac{y}{n}} = 2$ $\Rightarrow \frac{n}{y} + \frac{y}{n} + 2 = 4$ $\frac{n}{y} + \frac{y}{n} = 2$
 $\Rightarrow \frac{n^2 + y^2}{ny} = 2$ $n^2 + y^2 = 2ny$ $n^2 + y^2 - 2ny = (n-y)^2 = 0 \Rightarrow$
 $n_1 = y_1 \Rightarrow n_1 = n_r \Rightarrow y_1 = y_r$ مطلوب ✓

الف) $\frac{n-1}{n-2} \geq 0$, $\frac{2-n}{n} \geq 0$ $D_f = [0, 1] \cup (2, +\infty)$
مطلوب ✓

ب) $n \geq 0 \Rightarrow \sqrt{2-1} = \sqrt{2} - \sqrt{n}$ $\sqrt{2} - \sqrt{n} \geq 0$
 $\sqrt{2} \geq \sqrt{n}$ $2 \geq n$ $D_f = [0, 2]$ ✓

الف) $\frac{\sqrt{(n-1)(n-2)}}{\sqrt{(n-2)(n-1)}} \geq 0$ $(n-1)(n-2) \geq 0$ $(n-2)(n-1) > 0$
 $D_f = (-\infty, 1] \cup (2, +\infty)$ مطلوب ✓

ب) $\frac{\sqrt{(n-1)(n-2)}}{\sqrt{(n-2)(n-1)}} \geq 0$ $D_f = (-\infty, 1] \cup (2, 4) \cup (1, +\infty)$ ✓

الف) $\frac{\sqrt{(n-1)(2n-3)}}{\sqrt{(n-1)(2n-3)}} \geq 0$ $(n-1)(2n-3) \geq 0$ $(n-1)(2n-3) > 0$
 $D_f = (-\infty, 1) \cup [\frac{3}{2}, +\infty)$ مطلوب ✓

ب) $\frac{\sqrt{(n-1)(2n-3)}}{\sqrt{(n-1)(2n-3)}} \geq 0$ $D_f = (-\infty, 1) \cup (1, \frac{3}{2}) \cup [\frac{3}{2}, +\infty)$ ✓

مطلوب A $\Rightarrow$ مطلوب