Mustaqil yechish uchun misollar.

Berilgan matritsalar ustida talab qilingan amallani bajaring.

1. $A=\begin{bmatrix}1 & 5\\ 2 & -4\end{bmatrix}$, $B=\begin{bmatrix}3 & 2\\ 4 & 1\end{bmatrix}$ $2A-B=?$

2. $A=\begin{bmatrix}1 & -1 & -3\\ 2 & 1 & 5\end{bmatrix}$, $B=\begin{bmatrix}0 & 3 & 2\\ -1 & 4 & 1\end{bmatrix}$ $3A-2B=?$

3. $\begin{bmatrix}7 & 0\\ 3 & 1\\ -1 & 2\end{bmatrix}-3\begin{bmatrix}2 & \sqrt{2}\\ 1 & -1\\ -1 & 0\end{bmatrix}+\begin{bmatrix}1 & \sqrt{18}\\ 4 & -5\\ 3 & 1\end{bmatrix}$

4. $C=(1\ \ 2\ \ 3)$, $F=\begin{bmatrix}4 & -3\\ 1 & 2\\ 0 & 2\end{bmatrix}$ $C*F=?$

5. $A=\begin{bmatrix}2 & 1 & -1\\ 0 & 1 & 0\\ 0 & 0 & -1\end{bmatrix}$, $B=\begin{bmatrix}1 & -1\\ 0 & 1\\ 1 & 0\end{bmatrix}$ $A*B=?$

6. $A=\begin{bmatrix}1 & -1 & 2\\ 2 & 3 & 4\\ -4 & 5 & 1\end{bmatrix}$, $B=\begin{bmatrix}3 & 4 & 1\\ 0 & 2 & 5\\ 1 & -1 & 4\end{bmatrix}$ $A*B=?$

7. $A=\begin{bmatrix}3 & 2\\ 1 & 4\end{bmatrix}$, $A^2=?$

8. $A=\begin{bmatrix}1 & 1 & 2\\ 1 & 3 & 1\\ 4 & 1 & 1\end{bmatrix}$, E-birlik matritsa $2A^2+3A+5E=?$

9. $A=\begin{bmatrix}3 & 4 & 2\\ 1 & 0 & 5\end{bmatrix}$, $B=\begin{bmatrix}2 & 0\\ 1 & 3\\ 0 & 5\end{bmatrix}$, $C=\begin{bmatrix}1 & 3\\ 0 & 4\end{bmatrix}$ $A*B-C^2=?$

10. $A=\begin{bmatrix}1 & 2 & -3\\ 1 & 0 & 2\\ 4 & 5 & 3\end{bmatrix}$, $B=\begin{bmatrix}1\\ 2\\ 1\end{bmatrix}$, $C=(2\ \ 0\ \ 5)$, E- birlik matritsa $A*B*C-3E=?$

11. $A=\begin{pmatrix}2 & 0 & 1\\ -2 & 3 & 2\\ 4 & -1 & 5\end{pmatrix}$, $B=\begin{pmatrix}-3 & 1 & 0\\ 0 & 2 & 1\\ 0 & -1 & 3\end{pmatrix}$ $A*B=?$

12. $\begin{pmatrix}1 & -3 & 2\\ 3 & -4 & 1\\ 2 & -5 & 3\end{pmatrix}*\begin{pmatrix}2 & 5 & 6\\ 1 & 2 & 5\\ 1 & 3 & 2\end{pmatrix}=?$

13. $\begin{pmatrix}2 & -1 & 3 & -4\\ 3 & -2 & 4 & -3\\ 5 & -3 & -2 & 1\\ 3 & -3 & -1 & 2\end{pmatrix}*\begin{pmatrix}7 & 8 & 6 & 9\\ 5 & 7 & 4 & 5\\ 3 & 4 & 5 & 6\\ 2 & 1 & 1 & 2\end{pmatrix}=?$

14. $\begin{pmatrix} 5 & 7 & -3 & -4 \\ 7 & 6 & -4 & -5 \\ 6 & 4 & -3 & -2 \\ 8 & 5 & -6 & -1 \end{pmatrix} * \begin{pmatrix} 1 & 2 & 3 & 4 \\ 2 & 3 & 4 & 5 \\ 1 & 3 & 5 & 7 \\ 2 & 4 & 6 & 8 \end{pmatrix} = ?$

Matritsalar ustida amallarni bajaring:

1. $A=\begin{pmatrix} 3 & 5 \\ 4 & 1 \end{pmatrix}$, $B=\begin{pmatrix} 2 & 3 \\ 1 & -2 \end{pmatrix}$ $2A+5B=?$

2. $A=\begin{pmatrix} 3 & 5 & 7 \\ 2 & -1 & 0 \\ 4 & 3 & 2 \end{pmatrix}$, $B=\begin{pmatrix} 1 & 2 & 4 \\ 2 & 3 & -2 \\ -1 & 0 & 1 \end{pmatrix}$ $A+B=?$

3. $A=\begin{pmatrix} 1 & -1 & 3 \\ 2 & 1 & 5 \end{pmatrix}$, $C=\begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix}$ $A*C=?$

4. $A=\begin{pmatrix} 1 & 3 & -1 \\ 2 & 1 & 2 \\ 0 & 1 & 0 \end{pmatrix}$, $F=\begin{pmatrix} 1 & 1 \\ 2 & 3 \\ 1 & 0 \end{pmatrix}$ $A*F=?$

5. $A=\begin{pmatrix} 4 & 3 \\ 2 & 1 \end{pmatrix}$, $B=\begin{pmatrix} 5 & 7 \\ -1 & 2 \end{pmatrix}$ $A^2-A*B+2BA=?$

6. $A=\begin{pmatrix} 1 & -3 & 0 \\ 2 & 5 & 1 \end{pmatrix}$, $B=\begin{pmatrix} 0 & -1 & 3 \\ 3 & 5 & 2 \\ 4 & -2 & 1 \end{pmatrix}$ $A*B=?$

7. $A=\begin{pmatrix} 1 & 3 & 1 \\ 2 & 0 & 4 \\ 1 & 2 & 3 \end{pmatrix}$, $B=\begin{pmatrix} 2 & 1 & 0 \\ 1 & -1 & 2 \\ 3 & 2 & 1 \end{pmatrix}$ $A*B=?$ $B*A=?$

8. $A=\begin{pmatrix} 2 & 1 & 1 \\ 1 & 2 & 1 \\ 1 & 1 & 2 \end{pmatrix}$ $A^2+A+E=?$

9. $A=\begin{pmatrix} 4 & 3 \\ 7 & 5 \end{pmatrix}$, $B=\begin{pmatrix} -28 & 93 \\ 38 & -126 \end{pmatrix}$, $C=\begin{pmatrix} 7 & 3 \\ 2 & 1 \end{pmatrix}$ $A*B*C=?$

10. $\begin{pmatrix}1 & 3\\ 2 & 0\\ 1 & -1\end{pmatrix}*\begin{pmatrix}1 & -2 & 3\\ 5 & 4 & 0\end{pmatrix}+\begin{pmatrix}-10 & -9 & 7\\ 1 & 5 & 8\\ -1 & -3 & 6\end{pmatrix}=?$

11. $\begin{pmatrix}5 & 8 & -4\\ 6 & 9 & -5\\ 4 & 7 & -3\end{pmatrix}*\begin{pmatrix}3 & 2 & 5\\ 4 & -1 & 3\\ 9 & 6 & 5\end{pmatrix}=?$

12. $\begin{pmatrix}4 & 3\\ 7 & 5\end{pmatrix}*\begin{pmatrix}-28 & 93\\ 38 & -126\end{pmatrix}*\begin{pmatrix}7 & 3\\ 2 & 1\end{pmatrix}=?$

13. $\begin{pmatrix}5 & 2 & -2 & 3\\ 6 & 4 & -3 & 5\\ 9 & 2 & -3 & 4\\ 7 & 6 & -4 & 7\end{pmatrix}*\begin{pmatrix}2 & 2 & 2 & 2\\ -1 & -5 & 3 & 11\\ 16 & 24 & 8 & -8\\ 8 & 16 & 0 & -16\end{pmatrix}=?$

14. $\begin{pmatrix}1 & 1 & 1 & -1\\ -5 & -3 & -4 & 4\\ 5 & 1 & 4 & -3\\ -16 & -11 & -15 & 14\end{pmatrix}*\begin{pmatrix}7 & -2 & 3 & 4\\ 11 & 0 & 3 & 4\\ 5 & 4 & 3 & 0\\ 22 & 2 & 9 & 8\end{pmatrix}=$[1]?

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Chiziqli tenglamalar sistemalarini Gauss usulidan foydalanib yeching.

1. $\begin{cases}x_1 - x_2 = -4\\ 2x_1 + x_2 = -5\end{cases}$

2. $\begin{cases}x + 2y + 3z = 5\\ 4x + 5y + 6z = 8\\ 7x + 8y = 2\end{cases}$

3. $\begin{cases}2x_1 - x_2 - x_3 = 3\\ x_1 - 3x_2 + 2x_3 = -1\\ x_1 + x_2 = 5\end{cases}$

4.

[1] **Jane S Paterson,Dorothy A Watson“SQA Advanced Higher Mathematics” pp.173-182**

$$\begin{cases} 3x_1 - 5x_2 + 2x_3 - 4x_4 = 0 \\ -3x_1 + 4x_2 - 5x_3 + 3x_4 = -2 \\ -5x_1 + 7x_2 - 7x_3 + 5x_4 = -2 \\ 8x_1 - 8x_2 + 5x_3 - 6x_4 = -5 \end{cases}$$

5. $$\begin{cases} x_1 + 2x_2 + 3x_3 = 6, \\ 4x_1 + 5x_2 + 6x_3 = 9, \\ 7x_1 + 8x_2 = -6. \end{cases}$$