

VIZUAL VA TARQATMA MATERIALLAR

1-ilova

Juftlikda ishlash uchun topshiriqlar :	
1-variant $A = \begin{pmatrix} 3 & 1 & -2 & 1 \\ 2 & -1 & 1 & -2 \\ 5 & -2 & 3 & 1 \end{pmatrix}, \quad B = \begin{pmatrix} 2 & 3 & -3 & 0 \\ -4 & 2 & -4 & 5 \\ -2 & -1 & -1 & 5 \end{pmatrix}$ matritsalar uchun $A+B$, A^{-1} larni toping.	2-variant $A = \begin{pmatrix} 3 & 1 & -2 & 1 \\ 2 & -1 & 1 & -2 \\ 5 & -2 & 3 & 1 \end{pmatrix}, \quad B = \begin{pmatrix} 2 & 3 & -3 & 0 \\ -4 & 2 & -4 & 5 \\ -2 & -1 & -1 & 5 \end{pmatrix}$ matritsalar uchun $A-B$, B^{-1} larni toping.

TESTLAR

Topshiriqlar	To'g'ri javob	Muqobil javob	Muqobil javob	Muqobil javob
Matritsalarini ko'paytiring: $\begin{pmatrix} 2 & 1 \\ 3 & 2 \end{pmatrix} \begin{pmatrix} 1 & -1 \\ 1 & 1 \end{pmatrix}$	$* \begin{pmatrix} 3 & -1 \\ 5 & -1 \end{pmatrix}$	$\begin{pmatrix} 3 & -1 \\ 5 & 3 \end{pmatrix}$	$\begin{pmatrix} -2 & -1 \\ -5 & 4 \end{pmatrix}$	$\begin{pmatrix} 3 & -1 \\ 1 & 0 \end{pmatrix}$
Matritsalarini ko'paytiring: $\begin{pmatrix} 1 & 2 & 0 \\ -1 & 1 & 6 \end{pmatrix} \begin{pmatrix} 2 \\ 4 \\ 1 \end{pmatrix}$	$* \begin{pmatrix} 10 \\ 8 \end{pmatrix}$	$\begin{pmatrix} 3 & -1 \\ 5 & 3 \end{pmatrix}$	$\begin{pmatrix} -2 & -1 \end{pmatrix}$	$\begin{pmatrix} 3 \\ 8 \end{pmatrix}$
Matritsalarini ko'paytiring:	$* \begin{pmatrix} -1 & -7 \\ 20 & -3 \end{pmatrix}$	$\begin{pmatrix} 1 & -1 \\ 20 & 3 \end{pmatrix}$	$\begin{pmatrix} -2 & -7 \\ -5 & -3 \end{pmatrix}$	$\begin{pmatrix} 1 & -1 \\ -1 & -7 \end{pmatrix}$

$\begin{pmatrix} 3 & -1 \\ -5 & -2 \end{pmatrix} \begin{pmatrix} -2 & -1 \\ -5 & 4 \end{pmatrix}$				
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Quyidagilarni hisoblang.

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

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

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

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

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

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

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

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

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

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

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

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

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

Matritsalar ustida amallarni bajaring:

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

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

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

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

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

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

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

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

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

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

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

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

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

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