

2.  $A$  ва  $B$  матрицалар берилган.

а)  $AB$  ва  $BA$  кўпайтмаларни топинг; б)  $A^{-1}$  ни топинг ва  $AA^{-1}=A^{-1}A=E$  эканини текширинг:

$$2.1. A = \begin{pmatrix} 2 & 19 & 30 \\ 0 & -5 & -12 \\ 0 & 2 & 5 \end{pmatrix}, \quad B = \begin{pmatrix} 4 & 3 & 5 \\ 6 & 7 & 1 \\ 9 & 1 & 8 \end{pmatrix}.$$

$$2.2. A = \begin{pmatrix} 0 & 1 & 0 \\ -4 & 4 & 0 \\ -2 & 1 & 2 \end{pmatrix}, \quad B = \begin{pmatrix} -1 & 3 & -2 \\ -4 & 1 & 2 \\ 3 & -4 & 4 \end{pmatrix}.$$

$$2.3. A = \begin{pmatrix} 1 & -3 & 3 \\ -2 & -6 & 13 \\ -1 & -4 & 8 \end{pmatrix}, \quad B = \begin{pmatrix} 1 & -1 & -1 \\ -1 & 4 & 7 \\ 8 & 1 & -1 \end{pmatrix}.$$

$$2.4. A = \begin{pmatrix} 4 & -5 & 7 \\ 1 & -4 & 9 \\ -4 & 0 & 5 \end{pmatrix}, \quad B = \begin{pmatrix} 9 & 3 & 5 \\ 2 & 0 & 3 \\ 0 & 1 & -1 \end{pmatrix}.$$

$$2.5. A = \begin{pmatrix} 5 & 6 & -3 \\ -1 & 0 & 1 \\ 1 & 2 & -1 \end{pmatrix}, \quad B = \begin{pmatrix} 0 & 2 & 0 \\ -2 & 3 & 2 \\ 4 & -1 & 5 \end{pmatrix}.$$

$$2.6. A = \begin{pmatrix} 4 & -5 & 2 \\ 5 & -7 & 3 \\ 6 & -9 & 4 \end{pmatrix}, \quad B = \begin{pmatrix} -3 & 0 & 1 \\ 0 & 2 & 1 \\ 0 & -1 & 3 \end{pmatrix}.$$

$$2.7. A = \begin{pmatrix} 2 & -1 & 2 \\ 5 & -3 & 3 \\ -1 & 0 & -2 \end{pmatrix}, \quad B = \begin{pmatrix} 7 & 0 & 4 \\ 0 & 4 & -9 \\ 3 & 1 & 0 \end{pmatrix}.$$

$$2.8. A = \begin{pmatrix} 7 & -12 & 6 \\ 10 & -19 & 10 \\ 12 & -24 & 13 \end{pmatrix}, \quad B = \begin{pmatrix} 0 & 1 & -6 \\ 3 & 0 & 7 \\ 1 & 1 & -1 \end{pmatrix}.$$

$$2.9. A = \begin{pmatrix} 3 & -1 & 0 \\ -4 & -1 & 0 \\ 4 & -8 & -2 \end{pmatrix}, \quad B = \begin{pmatrix} 3 & -1 & 5 \\ 1 & 2 & 4 \\ 3 & 2 & -1 \end{pmatrix}.$$

$$2.10. A = \begin{pmatrix} 1 & -3 & 4 \\ 4 & -7 & 8 \\ 6 & -7 & 7 \end{pmatrix}, \quad B = \begin{pmatrix} 4 & 3 & 1 \\ 3 & 2 & 1 \\ 1 & -2 & 1 \end{pmatrix}.$$

$$2.11. A = \begin{pmatrix} 0 & 7 & 4 \\ 0 & 1 & 0 \\ 1 & 13 & 0 \end{pmatrix}, \quad B = \begin{pmatrix} 4 & 3 & 2 \\ -2 & 1 & -1 \\ 3 & 1 & 1 \end{pmatrix}.$$

$$2.12. A = \begin{pmatrix} 0 & 1 & -1 \\ 1 & 0 & 2 \\ 2 & 1 & 4 \end{pmatrix}, \quad B = \begin{pmatrix} 1 & -2 & -1 \\ 3 & 1 & 2 \\ 1 & 2 & 2 \end{pmatrix}.$$

$$2.13. A = \begin{pmatrix} -2 & 1 & 0 \\ 0 & 3 & 4 \\ 1 & -1 & 1 \end{pmatrix}, \quad B = \begin{pmatrix} 4 & 3 & 8 \\ 6 & 9 & 1 \\ 2 & 1 & 8 \end{pmatrix}.$$

$$2.14. A = \begin{pmatrix} 5 & 2 & 1 \\ 1 & -1 & 0 \\ 0 & 3 & -1 \end{pmatrix}, \quad B = \begin{pmatrix} -1 & 8 & -2 \\ -4 & 3 & 2 \\ 3 & -8 & 5 \end{pmatrix}.$$

$$2.15. A = \begin{pmatrix} 0 & -2 & 3 \\ 1 & 0 & 1 \\ 1 & 1 & 0 \end{pmatrix}, \quad B = \begin{pmatrix} 1 & -3 & 4 \\ 2 & 1 & -5 \\ -3 & 5 & 1 \end{pmatrix}.$$

$$2.16. A = \begin{pmatrix} 1 & 0 & 2 \\ 0 & 1 & -1 \\ 2 & 1 & 4 \end{pmatrix}, \quad B = \begin{pmatrix} 4 & 5 & -3 \\ 1 & -1 & -1 \\ 7 & 0 & 4 \end{pmatrix}.$$

$$2.17. A = \begin{pmatrix} -1 & 2 & 1 \\ 2 & 0 & 1 \\ 1 & 3 & -1 \end{pmatrix}, \quad B = \begin{pmatrix} 3 & 0 & 5 \\ 1 & 1 & 1 \\ 0 & 3 & -6 \end{pmatrix}.$$

$$2.18. A = \begin{pmatrix} 1 & -1 & 1 \\ -2 & 1 & 0 \\ 0 & 3 & 4 \end{pmatrix}, \quad B = \begin{pmatrix} 2 & -1 & -5 \\ 7 & 1 & 4 \\ 6 & 4 & -7 \end{pmatrix}.$$

$$2.19. A = \begin{pmatrix} 1 & -1 & 0 \\ 0 & 3 & -1 \\ 5 & 2 & 1 \end{pmatrix}, \quad B = \begin{pmatrix} 1 & 2 & 2 \\ 0 & -3 & 1 \\ 2 & 0 & 3 \end{pmatrix}.$$

$$2.20. A = \begin{pmatrix} 1 & -1 & 2 \\ 0 & 0 & 5 \\ 2 & 1 & -3 \end{pmatrix}, \quad B = \begin{pmatrix} 3 & 1 & 0 \\ 1 & -2 & -1 \\ 0 & 3 & 2 \end{pmatrix}.$$

$$2.21. A = \begin{pmatrix} 1 & 3 & -1 \\ 2 & 0 & 1 \\ -1 & 2 & 1 \end{pmatrix}, \quad B = \begin{pmatrix} 5 & -1 & 3 \\ 1 & -2 & 0 \\ 0 & 7 & -1 \end{pmatrix}.$$