

1.
$$\begin{cases} x - 2y = 6 \\ 3x + y = 4 \end{cases}$$

- A) $x = 2, \quad y = -2;$
 B) $x = 3, \quad y = -1;$
 C) $x = -2, \quad y = 4;$
 D) $x = 1, \quad y = -5;$

2. Chiziqli tenglamalar sistemasini yeching:
$$\begin{cases} 5x - y - z = 0 \\ x + 2y + 3z = 14 \\ 4x + 3y + 2z = 16 \end{cases}$$

- A) $x = 1, \quad y = 2, \quad z = 3;$
 B) $x = 3, \quad y = -1, \quad z = 0;$
 C) $x = -2, \quad y = 4, \quad z = 3;$
 D) $x = 1, \quad y = -5, \quad z = 2;$

3. Chiziqli tenglamalar sistemasini yeching:
$$\begin{cases} 2x - 3y + z = 11 \\ x + 2y - z = -6 \\ x - 4y - 2z = 3 \end{cases}$$

- A) $x = 1, \quad y = -2, \quad z = 3;$
 B) $x = 4, \quad y = -2, \quad z = 3;$
 C) $x = 3, \quad y = -1, \quad z = 0;$
 D) $x = 0, \quad y = -5, \quad z = 2;$

4. Chiziqli tenglamalar sistemasini yeching:
$$\begin{cases} 2x_1 + x_2 = 3 \\ 3x_1 + 2x_2 = 4 \end{cases}$$

- A) $x_1 = 2, \quad x_2 = -1;$
 B) $x_1 = 3, \quad x_2 = -1;$
 C) $x_1 = 1, \quad x_2 = 2;$
 D) $x_1 = 0, \quad x_2 = -5;$

5. Chiziqli tenglamalar sistemasini yeching:
$$\begin{cases} 7x_1 + 4x_2 - x_3 = 13 \\ 3x_1 + 2x_2 + 3x_3 = 3 \\ 2x_1 - 3x_2 + x_3 = -10 \end{cases}$$

- A) $x_1 = 0, \quad x_2 = 3, \quad x_3 = -1;$
 B) $x_1 = 2, \quad x_2 = -3, \quad x_3 = -4;$
 C) $x_1 = 0, \quad x_2 = 0, \quad x_3 = -3;$

D) $x_1 = 2, \quad x_2 = -1, \quad x_3 = -4;$ 6. Bizga A va B matritsalar berilgan bo'lsin. Qaysi holatda $A \cdot B$ ko'paytma aniqlangan deymiz;

- A) A matritsaning satrlar soni B matritsaning ustunlar soniga teng bo'lganda;
 B) A matritsaning ustunlar soni B matritsaning satrlar soniga teng bo'lganda;
 C) Faqatgina A va B matritsalarining o'lchamlari teng bo'lganda;
 D) Faqatgina A va B matritsalar kvadrat matritsa bo'lganda;

7. Bizga A va B matritsalar berilgan bo'lsin. Qaysi holatda $A + B$ yig'indi aniqlangan deymiz.

- A) A matritsaning satrlar soni B matritsaning ustunlar soniga teng bo'lganda;
 B) A matritsaning ustunlar soni B matritsaning satrlar soniga teng bo'lganda;
 C) Faqatgina A va B matritsalarining o'lchamlari teng bo'lganda;

D) Faqatgina A va B matritsalar kvadrat matritsa bo'lganda;

8. Satrlar soni ustunlar soniga teng bo'lgan matritsa \dots deyiladi. Nuqtalar o'rniga to'g'ri javobni keltiring.

A) birlik matritsa; B) diagonal matritsa; C) kvadrat matritsa; D) satr matritsa;

9. Bosh diagonalida turgan elementlari birga, qolgan elementlari nolga teng bo'lgan kvadrat matritsa \dots deyiladi. Nuqtalar o'rniga to'g'ri javobni keltiring;

A) birlik matritsa; B) diagonal matritsa; C) kvadrat matritsa; D) satr matritsa;

10. Quyidagi xossalarning qaysilari Determinantlar uchun o'rinli;

- a) Agar determinant ikkita bir xil satr(ustun)ga ega bo'lsa, uning qiymati nolga teng bo'ladi;
 - b) Agar determinantning barcha satrlari mos ustunlari bilan almashtirilsa, uning qiymati o'zgarmaydi;
 - c) Agar determinantning ikkita satr(ustun)ning o'rnini almashtirilsa, uning qiymati ikki marta ortadi;
 - d) Determinant biror λ songa ko'paytirilganda uning qiymati o'zgarmaydi;
- A) c ; B) a, c, d ; C) c, d ; D) a, b ;

11. ikkinchi tartibli determinantni hisoblang $\begin{vmatrix} 6 & -2 \\ -4 & 3 \end{vmatrix}$;

A) 12; B) 10; C) 25; D) 17;

12. Uchinchi tartibli determinantni hisoblang $\begin{vmatrix} 7 & -2 & 3 \\ -2 & 3 & 5 \\ 0 & 4 & 5 \end{vmatrix}$;

A) -79; B) 97; C) 105; D) -59;

13. Agar $A = \begin{pmatrix} 2 & 4 & -1 \\ 0 & -3 & -4 \end{pmatrix}$, $B = \begin{pmatrix} -3 & 7 & 0 \\ 5 & -2 & 9 \end{pmatrix}$ bo'lsa, $3A + 2B$ ni hisoblang.

A) $\begin{pmatrix} 12 & 4 & -11 \\ 20 & -23 & 7 \end{pmatrix}$; B) $\begin{pmatrix} 0 & 26 & -3 \\ 10 & -3 & 6 \end{pmatrix}$; C) $\begin{pmatrix} 19 & 24 & -1 \\ 0 & -3 & 15 \end{pmatrix}$; D) $\begin{pmatrix} 12 & 4 & -1 \\ 0 & -31 & 4 \end{pmatrix}$;

14. Agar $A = \begin{pmatrix} 3 & 4 \\ 0 & -1 \end{pmatrix}$, $B = \begin{pmatrix} 1 & 2 & 0 \\ -5 & 2 & 6 \end{pmatrix}$ bo'lsa, $A \cdot B$ ni hisoblang.

A) $\begin{pmatrix} -17 & 14 & 24 \\ 5 & -2 & -6 \end{pmatrix}$; B) $\begin{pmatrix} 0 & 2 & -3 \\ 1 & -13 & 26 \end{pmatrix}$; C) $\begin{pmatrix} 9 & 4 & -31 \\ 10 & -3 & 25 \end{pmatrix}$; D) $\begin{pmatrix} 25 & 14 & -1 \\ 0 & -3 & 14 \end{pmatrix}$;