Ответы: 226 ПИ. Вариант 35

1. $$\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$$

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ \frac{7}{2} & 1 & 0 & 0 \\ -1 & -\frac{26}{19} & 1 & 0 \\ 5 & \frac{68}{19} & -\frac{40}{41} & 1 \end{bmatrix}$, $U = \begin{bmatrix} -2 & 5 & 4 & 4 \\ 0 & -\frac{19}{2} & -8 & -13 \\ 0 & 0 & -\frac{246}{19} & -\frac{452}{19} \\ 0 & 0 & 0 & \frac{259}{41} \end{bmatrix}$

3. $$\begin{pmatrix} -10 & 12 & -11 \\ 2 & 19 & -5 \\ 2 & -16 & -4 \end{pmatrix}$$

4. $$\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 \\ 6 & 1 & 3 & 4 & 5 & 2 \end{pmatrix}$$

5. $$\sigma = (1,7,4,8,5,2)(3,9,6), ord = 6, \sigma^{-811} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 2 & 5 & 6 & 7 & 8 & 9 & 1 & 4 & 3 \end{pmatrix} = (1,2,5,8,4,7)(3,6,9)$$

6. Id;(1, 2, 7, 5, 6, 3, 4);(1, 3, 5, 2, 4, 6, 7);(1, 4, 3, 6, 5, 7, 2);
(1, 5, 4, 7, 3, 2, 6);(1, 6, 2, 3, 7, 4, 5);(1, 7, 6, 4, 2, 5, 3);

7. $-8(-16)^n + 9(-18)^n$

8. $0 + -4 * x + -4 * x^2 + -4 * x^3 + -1 * x^4$

9. При $\lambda = -8$

10. Определитель: $200 - 71\lambda$, при $\lambda = [200/71]$ ранг равен 3, иначе 4