Ответы: 227 ПИ. Вариант 39

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 1 & 1 & 0 & 0 \\ \frac{3}{2} & -\frac{1}{22} & 1 & 0 \\ \frac{7}{6} & \frac{7}{6} & \frac{209}{369} & 1 \end{bmatrix}$, $U = \begin{bmatrix} -6 & -5 & 9 & 2 \\ 0 & 11 & -2 & -1 \\ 0 & 0 & -\frac{123}{22} & -\frac{67}{22} \\ 0 & 0 & 0 & \frac{2789}{369} \end{bmatrix}$

3. $$\begin{pmatrix} -6 & -9 & -19 \\ -7 & -5 & -1 \\ -8 & 18 & 8 \end{pmatrix}$$

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

5. $$\sigma = (1,6,4,2,3,8)(5,7,9), ord = 6, \sigma^{-719} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 6 & 3 & 8 & 2 & 7 & 4 & 9 & 1 & 5 \end{pmatrix} = (1,6,4,2,3,8)(5,7,9)$$

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

7. $\frac{(-14)^n}{5} + \frac{4 \cdot 56^n}{5}$

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

9. При $\lambda = 9$

10. Определитель: $-40\lambda - 87$, при $\lambda = [-87/40]$ ранг равен 3, иначе 4