Ответы: 221 ПИ. Вариант 26

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ \frac{10}{7} & 1 & 0 & 0 \\ -1 & -\frac{119}{101} & 1 & 0 \\ -\frac{1}{7} & -\frac{8}{101} & -\frac{226}{451} & 1 \end{bmatrix}$, $U = \begin{bmatrix} -7 & -8 & -9 & -6 \\ 0 & \frac{101}{7} & \frac{118}{7} & \frac{116}{7} \\ 0 & 0 & \frac{1804}{101} & \frac{1568}{101} \\ 0 & 0 & 0 & \frac{2361}{451} \end{bmatrix}$

3. $$\begin{pmatrix} 17 & 0 & 19 \\ 6 & -3 & 19 \\ 0 & -16 & 1 \end{pmatrix}$$

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

5. $$\sigma = (1,9,7,4)(2,8)(3,5,6), ord = 12, \sigma^{-823} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 9 & 8 & 6 & 1 & 3 & 5 & 4 & 2 & 7 \end{pmatrix} = (1,9,7,4)(2,8)(3,6,5)$$

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

7. $\frac{28(-56)^n}{53} + \frac{25 \cdot 50^n}{53}$

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

9. При $\lambda = -9$

10. Определитель: $2\lambda + 214$, при $\lambda = [-107]$ ранг равен 3, иначе 4