Ответы: 2210 ПИ. Вариант 12

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ \frac{3}{2} & 1 & 0 & 0 \\ -\frac{5}{6} & -\frac{16}{21} & 1 & 0 \\ -\frac{2}{3} & \frac{10}{21} & -\frac{274}{367} & 1 \end{bmatrix}, U = \begin{bmatrix} 6 & 4 & 6 & 4 \\ 0 & -7 & -19 & -4 \\ 0 & 0 & -\frac{367}{21} & -\frac{68}{7} \\ 0 & 0 & 0 & -\frac{2085}{367} \end{bmatrix}$

3. $$\begin{pmatrix} 13 & -7 & 10 \\ 12 & 12 & -2 \\ -1 & -17 & 14 \end{pmatrix}$$

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

5. $$\sigma = (1,4)(2,6,3)(5,8,7,9), ord = 12, \sigma^{-743} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 4 & 6 & 2 & 1 & 8 & 3 & 9 & 7 & 5 \end{pmatrix} = (1,4)(2,6,3)(5,8,7,9)$$

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

7. $\frac{10(-20)^n}{37} + \frac{27 \cdot 54^n}{37}$

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

9. При $\lambda = 1$

10. Определитель: $82\lambda - 46$, при $\lambda = [23/41]$ ранг равен 3, иначе 4