Ответы: 221 ПИ. Вариант 44

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ \frac{4}{7} & 1 & 0 & 0 \\ -\frac{1}{7} & -\frac{47}{13} & 1 & 0 \\ \frac{2}{7} & -\frac{32}{13} & \frac{46}{83} & 1 \end{bmatrix}$, $U = \begin{bmatrix} 7 & 2 & -9 & 9 \\ 0 & \frac{13}{7} & \frac{50}{7} & -\frac{29}{7} \\ 0 & 0 & \frac{332}{13} & -\frac{282}{13} \\ 0 & 0 & 0 & -\frac{62}{83} \end{bmatrix}$

3. $$\begin{pmatrix} 6 & 12 & -15 \\ -16 & 5 & -5 \\ -19 & -2 & 15 \end{pmatrix}$$

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

5. $$\sigma = (1,5,8,6,3)(2,7,4,9), ord = 20, \sigma^{-739} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 5 & 7 & 1 & 9 & 8 & 3 & 4 & 6 & 2 \end{pmatrix} = (1,5,8,6,3)(2,7,4,9)$$

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

7. брак

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

9. При $\lambda = -8$

10. Определитель: $42\lambda + 28$, при $\lambda = [-2/3]$ ранг равен 3, иначе 4