Ответы: 228 ПИ. Вариант 25

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ -\frac{3}{2} & 1 & 0 & 0 \\ -\frac{5}{3} & \frac{28}{9} & 1 & 0 \\ -\frac{4}{3} & \frac{35}{9} & \frac{11}{52} & 1 \end{bmatrix}, U = \begin{bmatrix} 6 & -8 & -7 & -3 \\ 0 & -3 & -\frac{5}{2} & -\frac{19}{2} \\ 0 & 0 & -\frac{26}{9} & \frac{167}{9} \\ 0 & 0 & 0 & \frac{1925}{52} \end{bmatrix}$

3. $$\begin{pmatrix} 19 & 16 & -5 \\ -13 & -3 & -8 \\ 2 & -8 & -2 \end{pmatrix}$$

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

5. $$\sigma = (1,9)(2,5,4,8,6,3,7), ord = 14, \sigma^{-739} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 9 & 8 & 5 & 3 & 6 & 2 & 4 & 7 & 1 \end{pmatrix} = (1,9)(2,8,7,4,3,5,6)$$

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

7. $\frac{(-40)^n}{3} + \frac{2 \cdot 80^n}{3}$

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

9. При $\lambda = 5$

10. Определитель: $-10\lambda - 410$, при $\lambda = [-41]$ ранг равен 3, иначе 4