Ответы: 224 ПИ. Вариант 38

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ -5 & 1 & 0 & 0 \\ -6 & 2 & 1 & 0 \\ -4 & \frac{8}{11} & -\frac{43}{319} & 1 \end{bmatrix}$, $U = \begin{bmatrix} -1 & 4 & -2 & -2 \\ 0 & 11 & -18 & -8 \\ 0 & 0 & 29 & 12 \\ 0 & 0 & 0 & \frac{1734}{319} \end{bmatrix}$

3.
$$\begin{pmatrix} -7 & -19 & -19 \\ -10 & -12 & -2 \\ -5 & 7 & 7 \end{pmatrix}$$

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

5.
$$\sigma = (1,2)(3,4,7)(5,6)(8,9), ord = 6, \sigma^{-773} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 2 & 1 & 4 & 7 & 6 & 5 & 3 & 9 & 8 \end{pmatrix} = (1,2)(3,4,7)(5,6)(8,9)$$

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

7. $-\frac{16(-16)^n}{19} + \frac{35(-35)^n}{19}$

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

9. При $\lambda = 3$

10. Определитель: $77\lambda + 88$, при $\lambda = [-8/7]$ ранг равен 3, иначе 4