Ответы: 2210 ПИ. Вариант 14

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ -\frac{2}{3} & 1 & 0 & 0 \\ 0 & -\frac{8}{5} & 1 & 0 \\ -\frac{1}{3} & \frac{3}{5} & -\frac{91}{271} & 1 \end{bmatrix}, U = \begin{bmatrix} 3 & 0 & 5 & -4 \\ 0 & -5 & -\frac{17}{3} & -\frac{23}{3} \\ 0 & 0 & -\frac{271}{15} & -\frac{184}{15} \\ 0 & 0 & 0 & -\frac{502}{271} \end{bmatrix}$

3. $$\begin{pmatrix} 13 & 19 & -11 \\ 1 & 5 & -19 \\ 10 & 19 & -12 \end{pmatrix}$$

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

5. $$\sigma = (1,7,9,5)(2,8,6)(3,4), ord = 12, \sigma^{-739} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 7 & 6 & 4 & 3 & 1 & 8 & 9 & 2 & 5 \end{pmatrix} = (1,7,9,5)(2,6,8)(3,4)$$

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

7. $\frac{3(-24)^n}{8} + \frac{5 \cdot 40^n}{8}$

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

9. При $\lambda = 4$

10. Определитель: $9\lambda + 422$, при $\lambda = [-422/9]$ ранг равен 3, иначе 4