Ответы: 2210 ПИ. Вариант 33

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ \frac{5}{2} & 1 & 0 & 0 \\ \frac{3}{4} & 0 & 1 & 0 \\ -1 & -\frac{1}{3} & \frac{42}{29} & 1 \end{bmatrix}$, $U = \begin{bmatrix} -4 & -4 & 1 & -1 \\ 0 & 15 & \frac{9}{2} & \frac{1}{2} \\ 0 & 0 & \frac{29}{4} & -\frac{29}{4} \\ 0 & 0 & 0 & \frac{47}{3} \end{bmatrix}$

3. $$\begin{pmatrix} -17 & 3 & -4 \\ -19 & 13 & -20 \\ -15 & 14 & -19 \end{pmatrix}$$

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

5. $$\sigma = (1,8,3,4,7)(2,5)(6,9), ord = 10, \sigma^{-811} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 7 & 5 & 8 & 3 & 2 & 9 & 4 & 1 & 6 \end{pmatrix} = (1,7,4,3,8)(2,5)(6,9)$$

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

7. $\frac{(-10)^n}{11} + \frac{10 \cdot 100^n}{11}$

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

9. При $\lambda = 0$

10. Определитель: $60\lambda + 140$, при $\lambda = [-7/3]$ ранг равен 3, иначе 4