Ответы: 2210 ПИ. Вариант 32

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ -\frac{3}{4} & 1 & 0 & 0 \\ 0 & -\frac{32}{15} & 1 & 0 \\ -\frac{5}{4} & \frac{13}{15} & -\frac{17}{18} & 1 \end{bmatrix}, U = \begin{bmatrix} 4 & -9 & 1 & -9 \\ 0 & -\frac{15}{4} & \frac{27}{4} & -\frac{51}{4} \\ 0 & 0 & \frac{72}{5} & -\frac{181}{5} \\ 0 & 0 & 0 & -\frac{529}{18} \end{bmatrix}$

3. $$\begin{pmatrix} 19 & 15 & -5 \\ -6 & 1 & 18 \\ 5 & -13 & 19 \end{pmatrix}$$

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

5. $$\sigma = (1,3,4)(2,5,7,8,9,6), ord = 6, \sigma^{-733} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 4 & 6 & 1 & 3 & 2 & 9 & 5 & 7 & 8 \end{pmatrix} = (1,4,3)(2,6,9,8,7,5)$$

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

7. $\frac{3(-3)^n}{23} + \frac{20 \cdot 20^n}{23}$

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

9. При $\lambda = -2$

10. Определитель: $106\lambda - 152$, при $\lambda = [76/53]$ ранг равен 3, иначе 4