Ответы: 226 ПИ. Вариант 26

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ -\frac{1}{7} & 1 & 0 & 0 \\ \frac{3}{7} & -\frac{18}{41} & 1 & 0 \\ -\frac{1}{7} & \frac{62}{41} & -\frac{334}{257} & 1 \end{bmatrix}, U = \begin{bmatrix} -7 & -1 & -4 & 1 \\ 0 & \frac{41}{7} & \frac{45}{7} & \frac{36}{7} \\ 0 & 0 & \frac{514}{41} & \frac{362}{41} \\ 0 & 0 & 0 & \frac{2529}{257} \end{bmatrix}$

3. $$\begin{pmatrix} 5 & 9 & 8 \\ 7 & 14 & -17 \\ -1 & -5 & -6 \end{pmatrix}$$

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

5. $$\sigma = (1,6,8,7,3,4,2)(5,9), ord = 14, \sigma^{-733} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 8 & 6 & 2 & 1 & 9 & 7 & 4 & 3 & 5 \end{pmatrix} = (1,8,3,2,6,7,4)(5,9)$$

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

7. брак

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

9. При $\lambda = 8$

10. Определитель: $60\lambda - 270$, при $\lambda = [9/2]$ ранг равен 3, иначе 4