Ответы: 227 ПИ. Вариант 26

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ \frac{2}{5} & -\frac{1}{20} & 1 & 0 \\ -\frac{2}{5} & -\frac{19}{20} & -\frac{33}{23} & 1 \end{bmatrix}$, $U = \begin{bmatrix} -10 & 8 & 6 & -1 \\ 0 & 4 & 2 & -8 \\ 0 & 0 & -\frac{23}{10} & -2 \\ 0 & 0 & 0 & -\frac{388}{23} \end{bmatrix}$

3. $$\begin{pmatrix} -10 & 0 & -17 \\ 17 & -5 & -9 \\ -16 & -10 & 19 \end{pmatrix}$$

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

5. $$\sigma = (1,8,4,5,9)(2,7)(3,6), ord = 10, \sigma^{-773} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 4 & 7 & 6 & 9 & 1 & 3 & 2 & 5 & 8 \end{pmatrix} = (1,4,9,8,5)(2,7)(3,6)$$

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

7. $\frac{20 \cdot 20^n}{11} - \frac{9 \cdot 9^n}{11}$

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

9. При $\lambda = 6$

10. Определитель: $297\lambda + 1044$, при $\lambda = [-116/33]$ ранг равен 3, иначе 4