Ответы: 224 ПИ. Вариант 33

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ -\frac{7}{5} & 1 & 0 & 0 \\ -\frac{2}{5} & \frac{22}{17} & 1 & 0 \\ \frac{9}{5} & -\frac{43}{34} & -\frac{183}{838} & 1 \end{bmatrix}$, $U = \begin{bmatrix} -5 & -2 & -9 & -9 \\ 0 & -\frac{34}{5} & -\frac{113}{5} & -\frac{73}{5} \\ 0 & 0 & \frac{419}{17} & \frac{141}{17} \\ 0 & 0 & 0 & -\frac{1028}{419} \end{bmatrix}$

3. $$\begin{pmatrix} -17 & 11 & -18 \\ -19 & -4 & -20 \\ 2 & -14 & 12 \end{pmatrix}$$

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

5. $$\sigma = (1,5,8,2,4)(3,9,7,6), ord = 20, \sigma^{-733} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 8 & 1 & 6 & 5 & 2 & 7 & 9 & 4 & 3 \end{pmatrix} = (1,8,4,5,2)(3,6,7,9)$$

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

7. $\frac{6 \cdot 24^n}{5} - \frac{4^n}{5}$

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

9. При $\lambda = 6$

10. Определитель: $-59\lambda - 86$, при $\lambda = [-86/59]$ ранг равен 3, иначе 4