Ответы: 222 ПИ. Вариант 29

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ \frac{1}{2} & 1 & 0 & 0 \\ -1 & -\frac{26}{17} & 1 & 0 \\ -\frac{9}{8} & -\frac{47}{68} & \frac{19}{16} & 1 \end{bmatrix}$, $U = \begin{bmatrix} 8 & -7 & 3 & -8 \\ 0 & \frac{17}{2} & \frac{3}{2} & 12 \\ 0 & 0 & -\frac{80}{17} & \frac{312}{17} \\ 0 & 0 & 0 & -\frac{55}{2} \end{bmatrix}$

3. $$\begin{pmatrix} 19 & -8 & -4 \\ 19 & -6 & 2 \\ 9 & 12 & 0 \end{pmatrix}$$

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

5. $$\sigma = (1,4,6)(2,3,7,5)(8,9), ord = 12, \sigma^{-787} = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 6 & 3 & 7 & 1 & 2 & 4 & 5 & 9 & 8 \end{pmatrix} = (1,6,4)(2,3,7,5)(8,9)$$

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

7. $\frac{27(-27)^n}{23} - \frac{4(-4)^n}{23}$

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

9. При $\lambda = 8$

10. Определитель: $66\lambda - 886$, при $\lambda = [443/33]$ ранг равен 3, иначе 4