Ответы: 226 ПИ. Вариант 17

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

2. $L = \begin{bmatrix} 1 & 0 & 0 & 0 \\ \frac{4}{3} & 1 & 0 & 0 \\ \frac{1}{2} & -\frac{21}{40} & 1 & 0 \\ \frac{1}{6} & \frac{1}{8} & -\frac{65}{201} & 1 \end{bmatrix}$, $U = \begin{bmatrix} -6 & -4 & -7 & 2 \\ 0 & \frac{40}{3} & \frac{49}{3} & \frac{1}{3} \\ 0 & 0 & \frac{603}{40} & -\frac{393}{40} \\ 0 & 0 & 0 & -\frac{841}{67} \end{bmatrix}$

3. $$\begin{pmatrix} 19 & -11 & -3 \\ 0 & 10 & -9 \\ 11 & -18 & 8 \end{pmatrix}$$

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

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

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

7. брак

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

9. При $\lambda = -8$

10. Определитель: $127-75\lambda$, при $\lambda = [127/75]$ ранг равен 3, иначе 4