

invert{transpose{{1,1,1},{2,-1,3},{3,2,6}}}



Input:

$$\left(\begin{pmatrix} 1 & 1 & 1 \\ 2 & -1 & 3 \\ 3 & 2 & 6 \end{pmatrix}^T \right)^{-1} \quad (\text{matrix inverse})$$

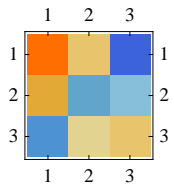
Result:

$$\frac{1}{8} \begin{pmatrix} 12 & 3 & -7 \\ 4 & -3 & -1 \\ -4 & 1 & 3 \end{pmatrix}$$

Dimensions:

3 (rows) × 3 (columns)

Matrix plot:



Determinant:

$$-\frac{1}{8}$$

Wolfram|Alpha: invert{transpose{{1,1,1},{2,-1,3},{3,2,6}}}

Trace:

$$\frac{3}{2}$$

Characteristic polynomial:

$$-x^3 + \frac{3x^2}{2} + \frac{3x}{4} - \frac{1}{8}$$

Eigenvalues:

$$\lambda_1 \approx 1.86603$$

$$\lambda_2 = -\frac{1}{2}$$

$$\lambda_3 \approx 0.133975$$

Eigenvectors:

$$v_1 \approx (-3.17298, -0.763708, 1)$$

$$v_2 \approx (1, -3, 1)$$

$$v_3 \approx (0.557593, 0.302169, 1)$$

Condition number:

$$27.5$$