WolframAlpha computational knowledge engine

transpose{{1,1,1},{2,−1,3},{3,2,6}}∗{{1,3,5},{1,−4,1},{2,5,8}}

Input:

$$\begin{pmatrix} 1 & 1 & 1 \\ 2 & -1 & 3 \\ 3 & 2 & 6 \end{pmatrix}^{T} . \begin{pmatrix} 1 & 3 & 5 \\ 1 & -4 & 1 \\ 2 & 5 & 8 \end{pmatrix}$$

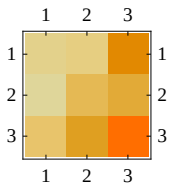
Result:

$$\begin{pmatrix} 9 & 10 & 31 \\ 4 & 17 & 20 \\ 16 & 21 & 56 \end{pmatrix}$$

Dimensions:

3 (rows) $\times$ 3 (columns)

Matrix plot:



Determinant:

-80

Trace:

82

Condition number:

1104.38

Inverse:

$$\frac{1}{80}\begin{pmatrix} -532 & -91 & 327 \\ -96 & -8 & 56 \\ 188 & 29 & -113 \end{pmatrix}$$