$$A = \begin{vmatrix} 1 & 4 & 1 \\ 1 & 4 & 5 \\ 3 & 2 & 7 \end{vmatrix} \qquad B = \begin{vmatrix} 0 & 6 & 1 \\ 5 & 2 & 7 \\ 8 & 0 & 1 \end{vmatrix} \qquad A+B = \begin{vmatrix} 1 & 10 \\ 6 & 6 \\ 11 & 2 \end{vmatrix}$$

$$A2 = \begin{vmatrix} 1 & 2 & 0 \\ 3 & 5 & 5 \\ 2 & 2 & 1 \end{vmatrix} \qquad B2 = \begin{vmatrix} 1 & 6 \\ 2 & 2 \\ 1 & 2 \end{vmatrix} \qquad A2*B2 = \begin{vmatrix} 5 & 10 \\ 18 & 38 \\ 7 & 18 \end{vmatrix}$$

$k = 3$

$$k*B2 = \begin{vmatrix} 3 & 18 \\ 6 & 6 \\ 3 & 6 \end{vmatrix}$$

2
12
8

(A2*B2)T=	5	18	7
	10	38	18

$$A = \begin{vmatrix} 1 & 0 & 3 \\ 2 & 1 & 1 \\ 2 & 3 & 1 \end{vmatrix} \qquad \det(A) = 10$$

$$A^{-1} = \begin{vmatrix} -0.2 & 0.9 & -0.3 \\ 0 & -0.5 & 0.5 \\ 0.4 & -0.3 & 0.1 \end{vmatrix}$$

$$A^{-1}A = \begin{vmatrix} 1 & 1.11E\text{-}16 & -5.6E\text{-}17 \\ 0 & 1 & 0 \\ 5.55E\text{-}17 & 5.55E\text{-}17 & 1 \end{vmatrix}$$

Use excel to show that AA^-1 = A^-1A for matrices A and B.

$$A = \begin{vmatrix} 1 & 3 & 0 \\ 2 & 1 & 2 \\ 4 & 1 & 3 \end{vmatrix} \qquad A^{-1} = \begin{vmatrix} 0.14 & -1.29 \\ 0.29 & 0.43 \\ -0.29 & 1.57 \end{vmatrix}$$

$$AA^{-1} = \begin{vmatrix} 1.00 & 0.00 & 0.00 \\ 0.00 & 1.00 & 0.00 \\ 0.00 & 0.00 & 1.00 \end{vmatrix} \qquad A^{-1}A = \begin{vmatrix} 1.00 & 0.00 \\ 0.00 & 1.00 \\ 0.00 & 0.00 \end{vmatrix}$$

0.86
-0.29
-0.71

0.00
0.00
1.00