

Name _____ Inverses of a 3 x 3 Matrix with technology

This LINK is a matrix calculator that will allow you to find an inverse of 3 x 3 matrix <https://www.desmos.com/matrix>

Find the determinant and the inverse of the implied matrices

$$1) \begin{bmatrix} 3 & -2 & 1 \\ 3 & -1 & -2 \\ 3 & -2 & -3 \end{bmatrix}$$

$$2) \begin{bmatrix} -3 & 2 & -3 \\ 0 & -1 & -1 \\ 3 & 0 & -3 \end{bmatrix}$$

$$3) \begin{vmatrix} 5 & 3 & 3 \\ -4 & -5 & 1 \\ 5 & 3 & 0 \end{vmatrix}$$

$$4) \begin{vmatrix} -6 & -6 & 1 \\ 3 & -5 & -2 \\ 4 & 3 & -3 \end{vmatrix}$$

$$5) \begin{vmatrix} 6 & 2 & -1 \\ -5 & -4 & -5 \\ 3 & -3 & 1 \end{vmatrix}$$

$$6) \begin{vmatrix} -2 & 5 & -4 \\ 0 & -3 & 5 \\ -5 & 5 & -6 \end{vmatrix}$$

$$7) \begin{vmatrix} 3 & 4 & 5 \\ -4 & 6 & 3 \\ 1 & -4 & 3 \end{vmatrix}$$

$$8) \begin{vmatrix} 6 & 5 & -3 \\ -5 & 4 & -2 \\ 1 & -4 & 5 \end{vmatrix}$$

$$9) \begin{vmatrix} -1 & -8 & 9 \\ 4 & 12 & -7 \\ -10 & 3 & 2 \end{vmatrix}$$

$$10) \begin{vmatrix} -5 & 5 & 5 \\ -8 & 9 & -3 \\ 8 & 5 & 9 \end{vmatrix}$$

$$11) \begin{vmatrix} 0 & a & b \\ 0 & c & d \\ 0 & x & y \end{vmatrix}$$

12) What value of x makes the determinant -4 ?

$$\begin{vmatrix} -2 & 0 & 0 \\ -6 & x & 1 \\ -4 & 0 & -1 \end{vmatrix}$$