



Math worksheet on 'Matrices - Find Inverse (2x2)  
(Level 1)'. Part of a broader unit on 'Matrices'

Learn online: [app.mobius.academy/math/units/matrices/](http://app.mobius.academy/math/units/matrices/)

**1** Find the inverse of this matrix if it has one

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

**a**  $\begin{bmatrix} 0.38 & 0 \\ 0.25 & 0.12 \end{bmatrix}$

**b**  $\begin{bmatrix} -0.18 & 0 \\ -0.12 & -0.06 \end{bmatrix}$

**c**  $\begin{bmatrix} 7 & 2 \\ 1 & 3 \end{bmatrix}$

**d**  $\begin{bmatrix} 0.13 & 0 \\ 0.09 & 0.04 \end{bmatrix}$

**e**  $\begin{bmatrix} 1 & 0 \\ 0.67 & 0.33 \end{bmatrix}$

**f**  $\begin{bmatrix} -0.25 & 0 \\ -0.17 & -0.08 \end{bmatrix}$

**2** Find the inverse of this matrix if it has one

$$\begin{bmatrix} 2 & 3 \\ 4 & 2 \end{bmatrix}$$

**a**  $\begin{bmatrix} 7 & 4 \\ 0 & 2 \end{bmatrix}$

**b**  $\begin{bmatrix} -0.25 & -0.38 \\ -0.5 & -0.25 \end{bmatrix}$

**c**  $\begin{bmatrix} 0 & 1 \\ 6 & 0 \end{bmatrix}$

**d**  $\begin{bmatrix} -16 & -24 \\ -32 & -16 \end{bmatrix}$

**e**  $\begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$

**f**  $\begin{bmatrix} -0.06 & -0.09 \\ -0.12 & -0.06 \end{bmatrix}$

**3** Find the inverse of this matrix if it has one

$$\begin{bmatrix} 0 & 4 \\ 0 & 0 \end{bmatrix}$$

**a** *undefined*

**b**  $\begin{bmatrix} 0 & 0.5 \\ 0 & 0 \end{bmatrix}$

**c**  $\begin{bmatrix} 0 & 0.2 \\ 0 & 0 \end{bmatrix}$

**d**  $\begin{bmatrix} 0 & 16 \\ 0 & 0 \end{bmatrix}$

**e**  $\begin{bmatrix} 0 & 0.19 \\ 0 & 0 \end{bmatrix}$

**f**  $\begin{bmatrix} 6 & 9 \\ 3 & 8 \end{bmatrix}$

**4** Find the inverse of this matrix if it has one

$$\begin{bmatrix} 1 & 1 \\ 4 & 0 \end{bmatrix}$$

**a**  $\begin{bmatrix} -0.25 & -0.25 \\ -1 & 0 \end{bmatrix}$

**b** *undefined*

**c**  $\begin{bmatrix} -0.19 & -0.19 \\ -0.75 & 0 \end{bmatrix}$

**d**  $\begin{bmatrix} 0.09 & 0.09 \\ 0.36 & 0 \end{bmatrix}$

**e**  $\begin{bmatrix} 7 & 6 \\ 3 & 3 \end{bmatrix}$

**f**  $\begin{bmatrix} 1 & 1 \\ 4 & 0 \end{bmatrix}$

**5** Find the inverse of this matrix if it has one

$$\begin{bmatrix} 0 & 0 \\ 0 & 4 \end{bmatrix}$$

**a**  $\begin{bmatrix} 6 & 4 \\ 9 & 8 \end{bmatrix}$

**b**  $\begin{bmatrix} NaN & NaN \\ NaN & \infty \end{bmatrix}$

**c**  $\begin{bmatrix} 0 & 0 \\ 0 & -0.8 \end{bmatrix}$

**d**  $\begin{bmatrix} 0 & 0 \\ 0 & 0.4 \end{bmatrix}$

**e** *undefined*

**f**  $\begin{bmatrix} 0 & 0 \\ 0 & 1 \end{bmatrix}$

**6** Find the inverse of this matrix if it has one

$$\begin{bmatrix} 3 & 4 \\ 4 & 2 \end{bmatrix}$$

**a**  $\begin{bmatrix} -0.1 & -0.13 \\ -0.13 & -0.07 \end{bmatrix}$

**b**  $\begin{bmatrix} -0.3 & -0.4 \\ -0.4 & -0.2 \end{bmatrix}$

**c**  $\begin{bmatrix} -0.6 & -0.8 \\ -0.8 & -0.4 \end{bmatrix}$

**d**  $\begin{bmatrix} -0.12 & -0.16 \\ -0.16 & -0.08 \end{bmatrix}$

**e**  $\begin{bmatrix} 0.08 & 0.1 \\ 0.1 & 0.05 \end{bmatrix}$

**f**  $\begin{bmatrix} -0.3 & -0.4 \\ -0.4 & 1.8 \end{bmatrix}$

**7** Find the inverse of this matrix if it has one

$$\begin{bmatrix} 2 & 0 \\ 3 & 4 \end{bmatrix}$$

**a**  $\begin{bmatrix} 0.11 & 0 \\ 0.17 & 0.22 \end{bmatrix}$

**b**  $\begin{bmatrix} -0.19 & 0 \\ -0.28 & -0.38 \end{bmatrix}$

**c**  $\begin{bmatrix} 0.38 & 0 \\ 0.56 & 0.75 \end{bmatrix}$

**d**  $\begin{bmatrix} 0.07 & 0 \\ 0.11 & 0.14 \end{bmatrix}$

**e**  $\begin{bmatrix} 2.25 & 0 \\ 0.38 & 0.5 \end{bmatrix}$

**f**  $\begin{bmatrix} 0.25 & 0 \\ 0.38 & 0.5 \end{bmatrix}$