

Matrices

Name: _____

Date: _____

Inverse of 3x3 Matrices.

1)
$$\begin{bmatrix} 1 & 2 & 5 \\ 6 & 3 & 4 \\ 0 & 3 & 1 \end{bmatrix}$$

2)
$$\begin{bmatrix} 2 & 5 & 1 \\ 3 & 2 & 4 \\ 4 & 0 & 6 \end{bmatrix}$$

3)
$$\begin{bmatrix} 5 & 5 & 1 \\ 1 & 2 & 4 \\ 4 & 3 & 2 \end{bmatrix}$$

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

5)
$$\begin{bmatrix} 5 & 1 & 3 \\ 1 & 0 & 4 \\ 6 & 5 & 4 \end{bmatrix}$$

6)
$$\begin{bmatrix} 6 & 1 & 2 \\ 2 & 3 & 5 \\ 4 & 0 & 3 \end{bmatrix}$$

7)
$$\begin{bmatrix} 6 & 3 & 2 \\ 5 & 6 & 3 \\ 1 & 4 & 4 \end{bmatrix}$$

8)
$$\begin{bmatrix} 5 & 4 & 2 \\ 4 & 6 & 0 \\ 1 & 2 & 3 \end{bmatrix}$$

9)
$$\begin{bmatrix} 2 & 2 & 5 \\ 6 & 1 & 3 \\ 5 & 4 & 0 \end{bmatrix}$$

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Name: _____

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Inverse of 3x3 Matrices.

1)
$$\begin{bmatrix} 1 & 2 & 5 \\ 6 & 3 & 4 \\ 0 & 3 & 1 \end{bmatrix}$$

$$\begin{bmatrix} \frac{-3}{23} & \frac{13}{69} & \frac{-7}{69} \\ \frac{-2}{23} & \frac{1}{69} & \frac{26}{69} \\ \frac{6}{23} & \frac{-1}{23} & \frac{-3}{23} \end{bmatrix}$$

2)
$$\begin{bmatrix} 2 & 5 & 1 \\ 3 & 2 & 4 \\ 4 & 0 & 6 \end{bmatrix}$$

$$\begin{bmatrix} 2 & -5 & 3 \\ \frac{-1}{3} & \frac{4}{3} & \frac{-5}{6} \\ \frac{3}{-4} & \frac{3}{10} & \frac{6}{-11} \\ \frac{3}{3} & \frac{3}{3} & \frac{6}{6} \end{bmatrix}$$

3)
$$\begin{bmatrix} 5 & 5 & 1 \\ 1 & 2 & 4 \\ 4 & 3 & 2 \end{bmatrix}$$

$$\begin{bmatrix} \frac{-8}{25} & \frac{-7}{25} & \frac{18}{25} \\ \frac{14}{25} & \frac{6}{25} & \frac{-19}{25} \\ \frac{-1}{5} & \frac{1}{5} & \frac{1}{5} \end{bmatrix}$$

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

$$\begin{bmatrix} \frac{4}{49} & \frac{19}{98} & \frac{-13}{49} \\ \frac{-5}{49} & \frac{13}{98} & \frac{4}{49} \\ \frac{1}{7} & \frac{-2}{7} & \frac{2}{7} \end{bmatrix}$$

5)
$$\begin{bmatrix} 5 & 1 & 3 \\ 1 & 0 & 4 \\ 6 & 5 & 4 \end{bmatrix}$$

$$\begin{bmatrix} \frac{4}{13} & \frac{-11}{65} & \frac{-4}{65} \\ \frac{-4}{13} & \frac{-2}{65} & \frac{17}{65} \\ \frac{-1}{13} & \frac{19}{65} & \frac{1}{65} \end{bmatrix}$$

6)
$$\begin{bmatrix} 6 & 1 & 2 \\ 2 & 3 & 5 \\ 4 & 0 & 3 \end{bmatrix}$$

$$\begin{bmatrix} \frac{9}{44} & \frac{-3}{44} & \frac{-1}{44} \\ \frac{7}{22} & \frac{5}{22} & \frac{-13}{22} \\ \frac{-3}{11} & \frac{1}{11} & \frac{4}{11} \end{bmatrix}$$

7)
$$\begin{bmatrix} 6 & 3 & 2 \\ 5 & 6 & 3 \\ 1 & 4 & 4 \end{bmatrix}$$

$$\begin{bmatrix} \frac{12}{49} & \frac{-4}{49} & \frac{-3}{49} \\ \frac{-17}{49} & \frac{22}{49} & \frac{-8}{49} \\ \frac{2}{7} & \frac{-3}{7} & \frac{3}{7} \end{bmatrix}$$

8)
$$\begin{bmatrix} 5 & 4 & 2 \\ 4 & 6 & 0 \\ 1 & 2 & 3 \end{bmatrix}$$

$$\begin{bmatrix} \frac{9}{23} & \frac{-4}{23} & \frac{-6}{23} \\ \frac{-6}{23} & \frac{13}{46} & \frac{4}{23} \\ \frac{1}{23} & \frac{-3}{23} & \frac{7}{23} \end{bmatrix}$$

9)
$$\begin{bmatrix} 2 & 2 & 5 \\ 6 & 1 & 3 \\ 5 & 4 & 0 \end{bmatrix}$$

$$\begin{bmatrix} \frac{-12}{101} & \frac{20}{101} & \frac{1}{101} \\ \frac{15}{101} & \frac{-25}{101} & \frac{24}{101} \\ \frac{19}{101} & \frac{2}{101} & \frac{-10}{101} \end{bmatrix}$$