

Matrices

Name: _____

Date: _____

Inverse of 3x3 Matrices.

1)
$$\begin{bmatrix} 6 & 7 & 2 \\ 3 & 1 & 2 \\ 8 & 5 & 4 \end{bmatrix}$$

2)
$$\begin{bmatrix} 4 & 6 & 3 \\ 2 & 7 & 4 \\ 5 & 1 & 8 \end{bmatrix}$$

3)
$$\begin{bmatrix} 13 & 3 & 5 \\ 6 & 2 & 8 \\ 7 & 4 & 5 \end{bmatrix}$$

4)
$$\begin{bmatrix} 6 & 7 & 2 \\ 3 & 1 & 5 \\ 9 & 4 & 8 \end{bmatrix}$$

5)
$$\begin{bmatrix} 10 & 3 & 5 \\ 8 & 7 & 9 \\ 4 & 2 & 8 \end{bmatrix}$$

6)
$$\begin{bmatrix} 6 & 1 & 5 \\ 8 & 2 & 9 \\ 7 & 5 & 3 \end{bmatrix}$$

7)
$$\begin{bmatrix} 11 & 2 & 10 \\ 3 & 5 & 7 \\ 1 & 6 & 4 \end{bmatrix}$$

8)
$$\begin{bmatrix} 13 & 2 & 2 \\ 6 & 7 & 10 \\ 5 & 4 & 3 \end{bmatrix}$$

9)
$$\begin{bmatrix} 6 & 2 & 7 \\ 5 & 4 & 3 \\ 8 & 11 & 9 \end{bmatrix}$$

Matrices

Name: _____

Date: _____

Inverse of 3x3 Matrices.

1)
$$\begin{bmatrix} 6 & 7 & 2 \\ 3 & 1 & 2 \\ 8 & 5 & 4 \end{bmatrix}$$

$$\begin{bmatrix} -1 & -3 & 2 \\ \frac{2}{3} & \frac{4}{3} & -1 \\ 3 & 3 & -5 \\ \frac{7}{6} & \frac{13}{3} & \frac{-5}{2} \\ 6 & 3 & 2 \end{bmatrix}$$

2)
$$\begin{bmatrix} 4 & 6 & 3 \\ 2 & 7 & 4 \\ 5 & 1 & 8 \end{bmatrix}$$

$$\begin{bmatrix} \frac{52}{133} & \frac{-45}{133} & \frac{3}{133} \\ 4 & 17 & -10 \\ \frac{133}{133} & \frac{133}{133} & \frac{133}{133} \\ -33 & 26 & 16 \\ \frac{133}{133} & \frac{133}{133} & \frac{133}{133} \end{bmatrix}$$

3)
$$\begin{bmatrix} 13 & 3 & 5 \\ 6 & 2 & 8 \\ 7 & 4 & 5 \end{bmatrix}$$

$$\begin{bmatrix} \frac{11}{79} & \frac{-5}{158} & \frac{-7}{79} \\ \frac{79}{79} & \frac{158}{79} & \frac{79}{79} \\ -13 & -15 & 37 \\ \frac{79}{79} & \frac{79}{79} & \frac{79}{79} \\ \frac{-5}{79} & \frac{31}{158} & \frac{-4}{79} \\ \frac{79}{79} & \frac{158}{158} & \frac{79}{79} \end{bmatrix}$$

4)
$$\begin{bmatrix} 6 & 7 & 2 \\ 3 & 1 & 5 \\ 9 & 4 & 8 \end{bmatrix}$$

$$\begin{bmatrix} \frac{-4}{27} & \frac{-16}{27} & \frac{11}{27} \\ \frac{7}{27} & \frac{10}{27} & \frac{-8}{27} \\ \frac{27}{27} & \frac{27}{27} & \frac{27}{27} \\ \frac{1}{27} & \frac{13}{27} & \frac{-5}{27} \\ \frac{27}{27} & \frac{27}{27} & \frac{27}{27} \end{bmatrix}$$

5)
$$\begin{bmatrix} 10 & 3 & 5 \\ 8 & 7 & 9 \\ 4 & 2 & 8 \end{bmatrix}$$

$$\begin{bmatrix} \frac{19}{118} & \frac{-7}{118} & \frac{-2}{59} \\ \frac{118}{118} & \frac{118}{118} & \frac{59}{59} \\ -7 & 15 & -25 \\ \frac{59}{59} & \frac{59}{59} & \frac{118}{118} \\ \frac{-3}{59} & \frac{-2}{59} & \frac{23}{118} \\ \frac{59}{59} & \frac{59}{59} & \frac{118}{118} \end{bmatrix}$$

6)
$$\begin{bmatrix} 6 & 1 & 5 \\ 8 & 2 & 9 \\ 7 & 5 & 3 \end{bmatrix}$$

$$\begin{bmatrix} \frac{3}{5} & \frac{-22}{65} & \frac{1}{65} \\ \frac{5}{-3} & \frac{65}{17} & \frac{65}{14} \\ \frac{5}{5} & \frac{65}{65} & \frac{65}{65} \\ \frac{-2}{5} & \frac{23}{65} & \frac{-4}{65} \\ \frac{5}{5} & \frac{65}{65} & \frac{65}{65} \end{bmatrix}$$

7)
$$\begin{bmatrix} 11 & 2 & 10 \\ 3 & 5 & 7 \\ 1 & 6 & 4 \end{bmatrix}$$

$$\begin{bmatrix} \frac{11}{61} & \frac{-26}{61} & \frac{18}{61} \\ 5 & -17 & 47 \\ \frac{122}{122} & \frac{61}{61} & \frac{122}{122} \\ -13 & 32 & -49 \\ \frac{122}{122} & \frac{61}{61} & \frac{122}{122} \end{bmatrix}$$

8)
$$\begin{bmatrix} 13 & 2 & 2 \\ 6 & 7 & 10 \\ 5 & 4 & 3 \end{bmatrix}$$

$$\begin{bmatrix} \frac{19}{205} & \frac{-2}{205} & \frac{-6}{205} \\ \frac{205}{205} & \frac{205}{205} & \frac{205}{205} \\ -32 & -29 & 118 \\ \frac{205}{205} & \frac{205}{205} & \frac{205}{205} \\ \frac{11}{205} & \frac{42}{205} & \frac{-79}{205} \\ \frac{205}{205} & \frac{205}{205} & \frac{205}{205} \end{bmatrix}$$

9)
$$\begin{bmatrix} 6 & 2 & 7 \\ 5 & 4 & 3 \\ 8 & 11 & 9 \end{bmatrix}$$

$$\begin{bmatrix} \frac{3}{137} & \frac{59}{137} & \frac{-22}{137} \\ \frac{137}{137} & \frac{137}{137} & \frac{137}{137} \\ -21 & -2 & 17 \\ \frac{137}{137} & \frac{137}{137} & \frac{137}{137} \\ \frac{23}{137} & \frac{-50}{137} & \frac{14}{137} \\ \frac{137}{137} & \frac{137}{137} & \frac{137}{137} \end{bmatrix}$$