

# Matrices

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Inverse of 3x3 Matrices.

1) 
$$\begin{bmatrix} 3 & 6 & 8 \\ 5 & 7 & 0 \\ 9 & 2 & 5 \end{bmatrix}$$

\_\_\_\_\_

2) 
$$\begin{bmatrix} 3 & 7 & 2 \\ 1 & 8 & 5 \\ 4 & 0 & 6 \end{bmatrix}$$

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

6) 
$$\begin{bmatrix} 2 & 0 & 4 \\ 2 & 5 & 7 \\ 6 & 9 & 1 \end{bmatrix}$$

\_\_\_\_\_

7) 
$$\begin{bmatrix} 5 & 3 & 1 \\ 2 & 7 & 6 \\ 2 & 8 & 0 \end{bmatrix}$$

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

# Matrices

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Inverse of 3x3 Matrices.

1) 
$$\begin{bmatrix} 3 & 6 & 8 \\ 5 & 7 & 0 \\ 9 & 2 & 5 \end{bmatrix}$$

$$\begin{bmatrix} \frac{-5}{469} & \frac{2}{469} & \frac{8}{469} \\ \frac{67}{469} & \frac{67}{469} & \frac{67}{469} \\ \frac{25}{469} & \frac{57}{469} & \frac{-40}{469} \end{bmatrix}$$

2) 
$$\begin{bmatrix} 3 & 7 & 2 \\ 1 & 8 & 5 \\ 4 & 0 & 6 \end{bmatrix}$$

$$\begin{bmatrix} \frac{24}{89} & \frac{-21}{89} & \frac{19}{178} \\ \frac{89}{89} & \frac{89}{89} & \frac{178}{178} \\ \frac{7}{89} & \frac{5}{89} & \frac{-13}{178} \\ \frac{89}{89} & \frac{89}{89} & \frac{178}{178} \\ \frac{-16}{89} & \frac{14}{89} & \frac{17}{178} \\ \frac{89}{89} & \frac{89}{89} & \frac{178}{178} \end{bmatrix}$$

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

$$\begin{bmatrix} \frac{10}{3} & \frac{37}{3} & -8 \\ \frac{-14}{3} & \frac{-50}{3} & 11 \\ \frac{3}{1} & \frac{3}{3} & -2 \end{bmatrix}$$

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

$$\begin{bmatrix} \frac{-2}{45} & \frac{17}{45} & \frac{-14}{45} \\ \frac{45}{23} & \frac{45}{7} & \frac{45}{-19} \\ \frac{45}{45} & \frac{45}{45} & \frac{45}{45} \\ \frac{-4}{45} & \frac{-11}{45} & \frac{17}{45} \end{bmatrix}$$

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

$$\begin{bmatrix} \frac{2}{13} & \frac{-1}{13} & 0 \\ \frac{13}{-4} & \frac{13}{-11} & \frac{0}{1} \\ \frac{39}{39} & \frac{39}{39} & \frac{3}{3} \\ \frac{-1}{39} & \frac{46}{39} & \frac{-2}{3} \\ \frac{39}{39} & \frac{39}{39} & \frac{3}{3} \end{bmatrix}$$

6) 
$$\begin{bmatrix} 2 & 0 & 4 \\ 2 & 5 & 7 \\ 6 & 9 & 1 \end{bmatrix}$$

$$\begin{bmatrix} \frac{29}{82} & \frac{-9}{41} & \frac{5}{41} \\ \frac{82}{-10} & \frac{41}{11} & \frac{41}{3} \\ \frac{41}{41} & \frac{82}{82} & \frac{82}{82} \\ \frac{3}{41} & \frac{9}{82} & \frac{-5}{82} \end{bmatrix}$$

7) 
$$\begin{bmatrix} 5 & 3 & 1 \\ 2 & 7 & 6 \\ 2 & 8 & 0 \end{bmatrix}$$

$$\begin{bmatrix} \frac{24}{101} & \frac{-4}{101} & \frac{-11}{202} \\ \frac{101}{-6} & \frac{101}{1} & \frac{202}{14} \\ \frac{101}{-1} & \frac{101}{17} & \frac{101}{-29} \\ \frac{101}{101} & \frac{101}{101} & \frac{202}{202} \end{bmatrix}$$

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

$$\begin{bmatrix} \frac{2}{3} & \frac{2}{3} & \frac{-5}{6} \\ \frac{3}{1} & \frac{3}{-1} & \frac{6}{11} \\ \frac{15}{-8} & \frac{3}{-1} & \frac{30}{17} \\ \frac{15}{15} & \frac{3}{3} & \frac{30}{30} \end{bmatrix}$$

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

$$\begin{bmatrix} \frac{25}{37} & \frac{8}{37} & \frac{-27}{37} \\ \frac{37}{-6} & \frac{37}{4} & \frac{37}{5} \\ \frac{37}{37} & \frac{37}{37} & \frac{37}{37} \\ \frac{-2}{37} & \frac{-11}{37} & \frac{14}{37} \end{bmatrix}$$