

Warm Up Matrix Equations

**You will need a
Graphing Calculator!**

**Put the Matrix into
your calculator as
matrix [A].**

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

Find the inverse of [A].

$$[A] = \begin{bmatrix} -3 & 2 & -3 \\ 0 & -1 & -1 \\ 3 & 0 & -3 \end{bmatrix} [A]^{-1} =$$

Make a 3x3 and a 3x1 matrix for solving the systems of equations. Name the 3x3 [C] name the 3x1 [D]. Put both in calculator.

$$5x - 4y + 2z = 21$$

$$-x - 5y + 6z = -24$$

$$-x - 4y + 5z = -21$$

Find $[C]^{-1}$

Use [C] and [D] to write a matrix equation that can be used to solve the system.

$$\begin{aligned} 5x - 4y + 2z &= 21 \\ -x - 5y + 6z &= -24 \\ -x - 4y + 5z &= -21 \end{aligned}$$

Graph the equation

$$y = x^2 + 3x - 10$$

Solve the equation

$$0 = x^2 + 3x - 10$$

Graph the equation

$$y < x^2 + 3x - 10$$

Solve the equation

$$y < x^2 + 3x - 10$$

Graph the equation

$$y = 2x^2 - 5x - 12$$

Solve the equation

$$0 = 2x^2 - 5x - 12$$

Graph the equation

$$y > 2x^2 - 5x - 12$$

Solve the equation

$$y > 2x^2 - 5x - 12$$

