$\qquad$

### 9.2 Solving Linear Systems by Elimination

## Bell Work

For what values of the coefficients $a$ and $b$ is the ordered pair $(3,-3)$ the solution to the linear system below?
$a x+b y=-15$
$2 a x-3 b y=0$

## Vocabulary

- $\qquad$ method: add or $\qquad$ the equations to eliminate one variable and solve for the other variable.

Story Problem: The sum of two numbers is -22 . The difference of the two numbers is 8 . What are the two numbers?

## LET STATEMENTS

SYSTEM

## SENTENCE

Example 1: Solve the following linear system of equations using elimination. Verify your answer.
$2 x+y=-7$
$x+y=-4$

Example 2: Solve the following linear system of equations using elimination. Verify your answer.
$2 x+7 y=24$
$3 x-2 y=-4$

## You try!

Story Problem: The sum of two numbers is 175 and their difference is 1 . What are the two numbers?

## LET STATEMENTS

## SENTENCE

HW: P. 488 \# 1, 2, 4, \& 5 (pick 1), 7, 8, 9, 10, 11, 13

