Algebra 1 6.3
Solve systems of equations by elimination
system of equations
solve
substitution method
zero pair
additive inverse
addition property of equality
whiteboards

form zero pairs

**GuidedPractice**

**1A.** $-4x + 3y = -3$

$4x - 5y = 5$

$4 \cdot 0 - 5 \cdot -1 = 5$

$0 + 5 = 5$

$\frac{-2y}{-2} = \frac{2}{-2}$

$y = -1$

$-4 \cdot x + 3 \cdot -1 = -3$

$-4x + -3 = -3$

$+3 \quad +3$

$\frac{-4x}{-4} = \frac{0}{-4}$

$x = 0$

$\therefore (0, -1)$

**2.** $8x + 5y = 38$
$-8x + 2y = 4$

x y
(6, 18)

5. CCSS REASONING The sum of two numbers is 24. Five times the first number minus the second number is 12. What are the two numbers?

$x + y = 24$

$5x - y = 12$

$6x = 36$

$\frac{6x}{6} = \frac{36}{6}$

$x = 6$

$6 + y = 24$

$-6 \quad -6$

$y = 18$

$x + y = 151$

$x - y = 7$

$2x = 158$

$\frac{2x}{2} = \frac{158}{2}$

$x = 79$

$x + y = 151$

$79 + y = 151$

$-79 \quad -79$

$y = 72$

Whiteboards

**2.** $8x + 5y = 38$
$-8x + 2y = 4$

$5 \cdot 2 - p = 7$

$-18 \quad -p = -10$

1. $5m - p = 7$

$7m - p = 11 \xrightarrow{\cdot -1}$ $-7m + p = -11$

$5m - p = 7$

$-2m = -4$

$\frac{-2m}{-2} = \frac{-4}{-2}$

$m = 2$

$-p = -3$

$\frac{-p}{-1} = \frac{-3}{-1}$

$p = 3$

$7 \cdot 2 - 3 = 11$

$14 - 3 = 11$

(2, 3)

**8.** $y + z = 4$
$y - z = 8$

**1.** $5m - p = 7$
$7m - p = 11$

3 $7f + 3g = -6$

$7f - 2g = -31$

**4.** $6a - 3b = 27$
$2a - 3b = 11$

6.3 p 353
1-12