Algebra 1

# HW21: Solving by Elimination, Part 2

**Solve each system by elimination.**

1) $-18x - 6y = -6$
$-9x - y = -19$

2) $-2x - 6y = -8$
$-5x - 2y = 6$

3) $-2x - 4y = 18$
$-4x + 2y = 6$

4) $-x + 10y = 29$
$7x + 7y = 28$

5) $-2x - 7y = -15$
$6x + 14y = 10$

6) $-9x - y = -6$
$3x + 9y = -24$

7) $9x - 6y = -9$
$-3x + y = 12$

8) $-8x - 7y = 4$
$-x + 6y = -27$

9) $-12x - 3y = -24$
$4x + 4y = 20$

10) $8x - 9y = 11$
$x - 3y = 7$

**Solve by elimination. Be sure to define variables, write equations, solve, and provide answers that make sense.**

11) The school that Danielle goes to is selling tickets to the annual talent show. On the first day of ticket sales the school sold 10 senior citizen tickets and 2 student tickets for a total of $48. The school took in $80 on the second day by selling 14 senior citizen tickets and 6 student tickets. What is the price each of one senior citizen ticket and one student ticket?

12) Carlos and Shreya are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Carlos sold 5 rolls of plain wrapping paper and 3 rolls of shiny wrapping paper for a total of $66. Shreya sold 10 rolls of plain wrapping paper and 4 rolls of shiny wrapping paper for a total of $108. Find the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper.

13) The school that Jacob goes to is selling tickets to a fall musical. On the first day of ticket sales the school sold 13 adult tickets and 3 child tickets for a total of $51. The school took in $54 on the second day by selling 6 adult tickets and 9 child tickets. Find the price of an adult ticket and the price of a child ticket.

14) Huong and Maria each improved their yards by planting daylilies and ornamental grass. They bought their supplies from the same store. Huong spent $136 on 14 daylilies and 4 bunches of ornamental grass. Maria spent $22 on 2 daylilies and 1 bunch of ornamental grass. Find the cost of one daylily and the cost of one bunch of ornamental grass.

**Find the slope of the line through each pair of points.**

15) $(-14, 5), (19, -19)$

16) $(2, -16), (-4, 14)$