Name_____

Systems Review 1

Date_____ Period_____

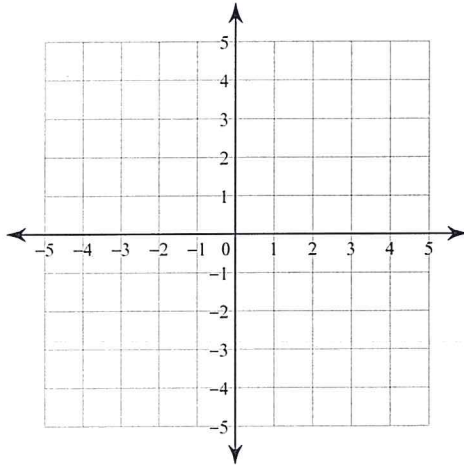**Solve each system by graphing.**

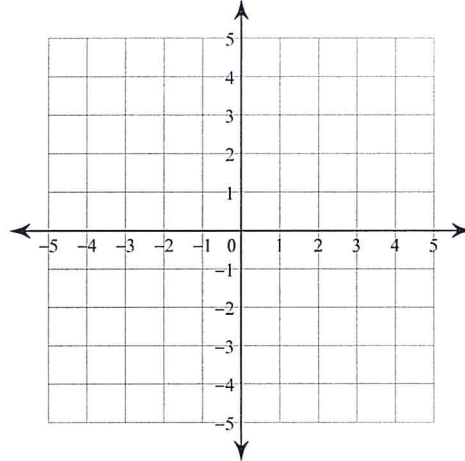1) $y = -3x - 2$
$y = -\dfrac{1}{2}x + 3$

2) $2x - y = 3$
$5x + y = 4$

Solve each system by substitution.

3) $-3x + 7y = 8$
$y = -4x - 21$

4) $-7x - 3y = -21$
$8x + y = 7$

Solve each system by elimination.

5) $-16x + 7y = 4$
$8x - 2y = -8$

6) $4x + 8y = -16$
$7x - 6y = -8$

7) Amanda and Imani each improved their yards by planting hostas and ornamental grass. They bought their supplies from the same store. Amanda spent $182 on 12 hostas and 5 bunches of ornamental grass. Imani spent $54 on 4 hostas and 1 bunch of ornamental grass. Find the cost of one hosta and the cost of one bunch of ornamental grass.

8) The indoor climbing gym is a popular field trip destination. This year the senior class at High School A and the senior class at High School B both planned trips there. The senior class at High School A rented and filled 2 vans and 9 buses with 305 students. High School B rented and filled 14 vans and 1 bus with 213 students. Every van had the same number of students in it as did the buses. Find the number of students in each van and in each bus.

9) The school that Arjun goes to is selling tickets to a fall musical. On the first day of ticket sales the school sold senior citizen tickets and 1 child ticket for a total of $51. The school took in $55 on the second day by selling 5 senior citizen tickets and 5 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.

10) Jennifer and Adam are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Jennifer sold 7 rolls of plain wrapping paper and 6 rolls of shiny wrapping paper for a total of $159. Adam sold 14 rolls of plain wrapping paper and 7 rolls of shiny wrapping paper for a total of $238. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?

Answers to Systems Review 1

1) $(-2, 4)$ 2) $(1, -1)$ 3) $(-5, -1)$ 4) $(0, 7)$

5) $(-2, -4)$ 6) $(-2, -1)$ 7) hosta: \$11, bunch of ornamental grass: \$10

8) Van: 13, Bus: 31   9) senior citizen ticket: \$5, child ticket: \$6

10) roll of plain wrapping paper: \$9, roll of shiny wrapping paper: \$16