

## Review for Systems and Piece-wise Quiz

Date \_\_\_\_\_ Period \_\_\_\_\_

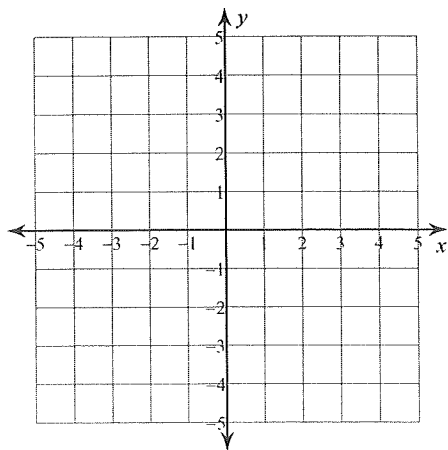
1) Nick and Hannah each improved their yards by planting daylilies and geraniums. They bought their supplies from the same store. Nick spent \$65 on 1 daylily and 7 geraniums. Hannah spent \$44 on 4 daylilies and 4 geraniums. What is the cost of one daylily and the cost of one geranium?

2) Sara's school is selling tickets to a choral performance. On the first day of ticket sales the school sold 7 senior citizen tickets and 1 child ticket for a total of \$98. The school took in \$350 on the second day by selling 14 senior citizen tickets and 13 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.

Solve each system by graphing.

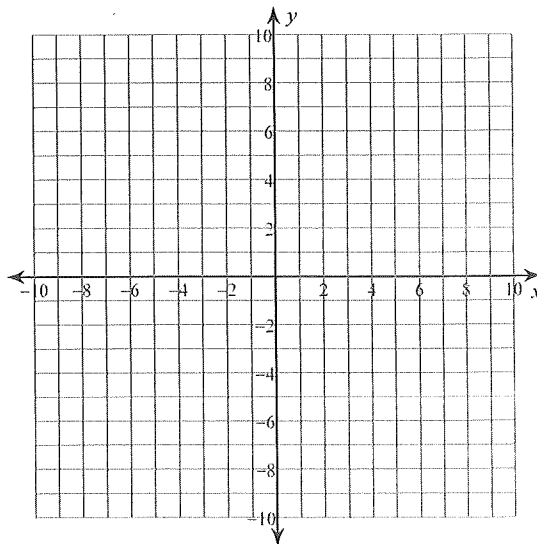
$$3) \quad y = -\frac{1}{3}x - 2$$

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



$$4) \quad 3x + y = 9$$

$$11x - 2y = 16$$



**Solve each system by substitution.**

$$\begin{aligned} 5) \quad x - y &= 3 \\ 2x + 6y &= -10 \end{aligned}$$

$$\begin{aligned} 6) \quad 4x + 4y &= 4 \\ -x + y &= 13 \end{aligned}$$

$$\begin{aligned} 7) \quad 6x + 2y &= -7 \\ 3x + y &= -5 \end{aligned}$$

$$\begin{aligned} 8) \quad 8x - 2y &= -30 \\ -4x + y &= 15 \end{aligned}$$

**Solve each system by elimination.**

$$\begin{aligned} 9) \quad -2x + 12y &= 12 \\ x - 6y &= -6 \end{aligned}$$

$$\begin{aligned} 10) \quad 3x - 20y &= 5 \\ -5x + 10y &= 15 \end{aligned}$$

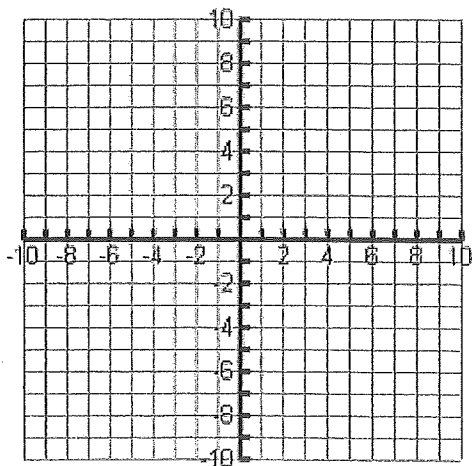
$$\begin{aligned} 11) \quad -9x - 4y &= -15 \\ 8x + 9y &= -3 \end{aligned}$$

$$\begin{aligned} 12) \quad -12x - 4y &= 0 \\ 30x + 10y &= 10 \end{aligned}$$

13) The sum of two numbers is 14. Their difference is 2. What are the numbers?

14) Find the value of two numbers if their sum is 11 and their difference is 1.

$$15. f(x) = \begin{cases} 3, & x < -1 \\ x+1, & 1 \leq x \leq 4 \end{cases}$$



$$16. f(x) = \begin{cases} x+5 & \text{if } x < -2 \\ -4 & \text{if } x \geq -2 \end{cases}$$

