

Algebra I

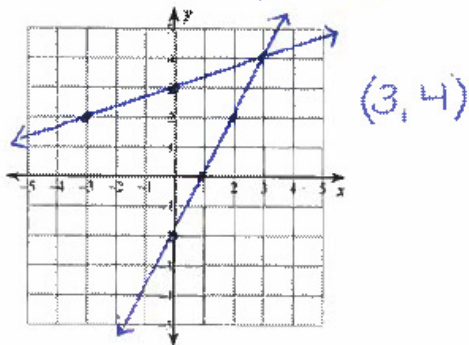
Name \_\_\_\_\_

Mid-Unit 3 Remediation

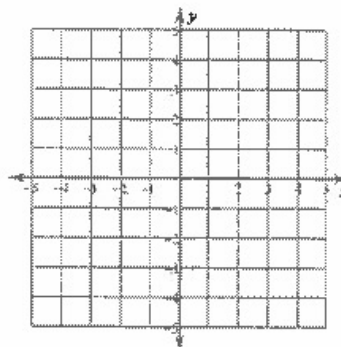
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Solve each system by graphing.

1)  $y = \frac{1}{3}x + 3$   $m = \frac{1}{3}, b = 3$   
 $y = 2x - 2$   $m = 2, b = -2$



2)  $y = \frac{1}{4}x - 4$   
 $y = -\frac{5}{4}x + 2$



Solve each system by substitution.

3)  $-3x + 2y = 16$   
 $x + 3y = 13$

$x = 13 - 3y$   
 $-3(13 - 3y) + 2y = 16$   
 $-39 + 9y + 2y = 16$   
 $-39 + 11y = 16$   
 $+39 \quad +39$   
 $11y = 55$   
 $\frac{11y}{11} = \frac{55}{11}$   
 $y = 5$

$x = 13 - 3y$   
 $x = 13 - 3(5)$   
 $x = 13 - 15$   
 $x = -2$   
 $(-2, 5)$

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

Solve each system by elimination.

5)  $(-5x + 7y = -11) \cdot 2$

$9x - 14y = 17$

$-10x + 14y = -22$

$\frac{-x = -5}{-1 \quad -7}$

$x = 5$

$-5(5) + 7y = -11$

$-25 + 7y = -11$

$+25 \quad +25$

$\frac{7y = 14}{7 \quad 7}$

$y = 2$

$(5, 2)$

6)  $4x - 10y = -2$

$-2x + 20y = 16$

- 7) Ted and Kali each improved their yards by planting daylilies and ornamental grass. They bought their supplies from the same store. Ted spent \$15 on 1 daylily and 2 bunches of ornamental grass. Kali spent \$130 on 10 daylilies and 10 bunches of ornamental grass. Find the cost of one daylily and the cost of one bunch of ornamental grass.

$-5(d + 2g = 15)$

$10d + 10g = 130$

$-5d - 10g = -75$

$\frac{5d = 55}{5 \quad 5}$

$d = 11$

$11 + 2g = 15$

$-11 \quad -11$

$\frac{2g = 4}{2 \quad 2}$

$g = 2$

daylilies \$11

grass \$2

- 8) The school that Shayna goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 2 senior citizen tickets and 12 student tickets for a total of \$198. The school took in \$306 on the second day by selling 12 senior citizen tickets and 9 student tickets. What is the price each of one senior citizen ticket and one student ticket?