Lesson 3.1.3 to 3.1.4 Assignment

Name: Date: Period:

3-49.

Solve each of the following systems algebraically. What do the solutions tell you about the graph of each system? Visualizing the graphs may help with your description. [Homework Help ✎](#)
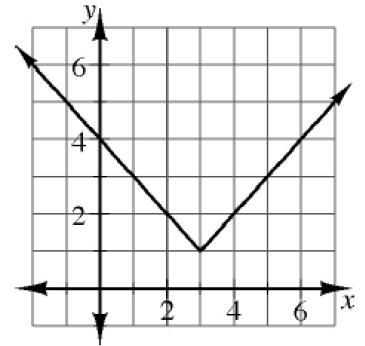
a. $y = 3x - 5$ $\quad y = -2x - 15$	b. $y - 7 = -2x$ $\quad 4x + 2y = 14$
c. $y = 2(x + 3)^2 - 5$ $\quad y = 14x + 17$	d. $y = 3(x - 2)^2 + 3$ $\quad y = 6x - 12$

3-50.

Examine the graph of $f(x) = |x-3|+1$ at right. Explain how you can use the graph to determine the values below. <u>Homework Help</u> ✎

a. $f(3) =$

b. $f(0) =$

c. $f(4) =$

d. $f(-1) =$

3-51. Use the graph of $f(x) = |x-3| + 1$ in problem 3-50 to solve the equations and inequalities below. It may be helpful to copy the graph onto graph paper first. <u>3-51 HW eTool</u> (Desmos) <u>Homework Help</u> ✎

    a. $|x-3| + 1 = 1$

    c. $|x-3| + 1 = 3$

b. $|x-3| + 1 \le 4$

d. $|x-3| + 1 > 2$

3-54. Determine if each of the functions below is even, odd, or neither. Homework Help ✎

a. $y = \sqrt[3]{x}$

b. $y = 9x^5 - x - 9$

c. $y = 4x^3 + 8x^7$

3-61. Solve each equation algebraically. Think about Rewriting, Looking Inside, or Undoing.
[Homework Help ✎](#)

a. $5 - 3\left(\frac{1}{2}x + 2\right) = -7$

b. $5(\sqrt{x-2} + 1) = 15$

c. $12 - \left(\frac{2x}{3} + x\right) = 2$

d. $-3(2x + 1)^3 = -192$

3-62. Is $x = -1$ a solution to the inequality $2x^2 + 5x - 3 \leq x^2 + 4x + 3$? What about x=5? Show how you know. What are three more solutions? <u>Homework Help</u> ✎

3-64. Determine if each of the following functions is odd, even, or neither. <u>Homework Help</u> ✎

a. $f(x) = 3x^3 + 2$

b. $y = x^6 + x^4$