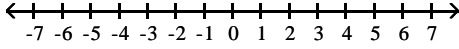


**EAST LOS ANGELES COLLEGE**  
**MATH 125 (INTERMEDIATE ALGEBRA) WORKSHEET SECTION 8.1**

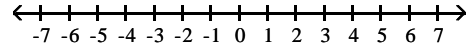
**NAME:**

Solve the inequality. Give the solution set in both interval and graph forms.

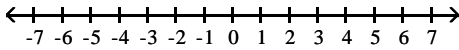
1)  $-8 < -2a + 4 \leq 0$



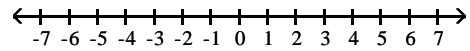
4)  $-2b + 5 > 3$  or  $-2b + 5 \leq 11$



2)  $-18 < 2x - 8$  and  $8x + 4 < -4$

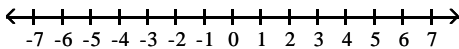


5)  $9x - 9 \leq -36$  or  $9x - 9 \leq 0$



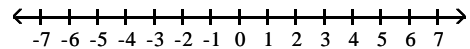
For the compound inequality, give the solution set in both interval and graph forms.

3)  $9x + 2 \leq -7$  or  $9x + 2 \geq 29$



Solve the inequality. Give the solution set in both interval and graph forms.

6)  $5x - 1 < 4$  and  $x - 2 > -1$



Solve the equation.

1)  $|4x - 2| = 8$

4)  $10 - 3|4 + 16z| = -18$

2)  $|8m + 6| = -7$

5)  $|3s - 9| = |s + 2|$

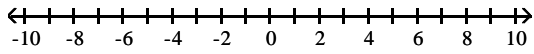
3)  $|5m + 3| + 9 = 18$

EAST LOS ANGELES COLLEGE  
MATH 125 (INTERMEDIATE ALGEBRA) WORKSHEET SECTION 8.3

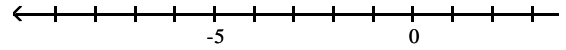
NAME: \_\_\_\_\_

Solve and graph. Write the solution in interval notation.

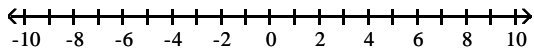
1)  $|3x + 1| < 5$



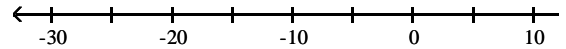
4)  $|3k - 3| + 3 > 11$



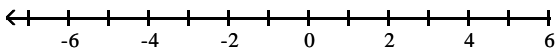
2)  $|-2x - 1| < 8$



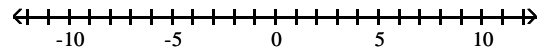
5)  $5 - |y + 5| \geq -14$



3)  $|2x - 8| \geq 3$



6)  $3|z + -3| + 2 \leq 13$

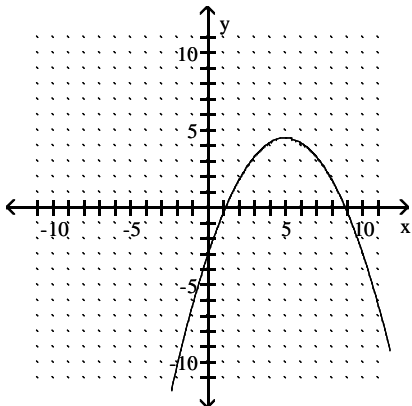


**EAST LOS ANGELES COLLEGE**  
**MATH 125 (INTERMEDIATE ALGEBRA) WORKSHEET SECTION 8.4**

**NAME:**

Identify the domain and range of the relation.

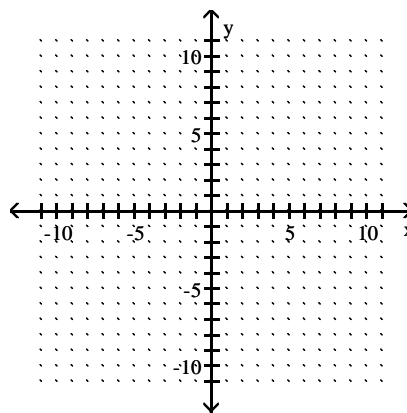
1)



4) Given  $f(x) = x^3 + 2x^2 - 6x - 6$ , find  $f(-4)$ .

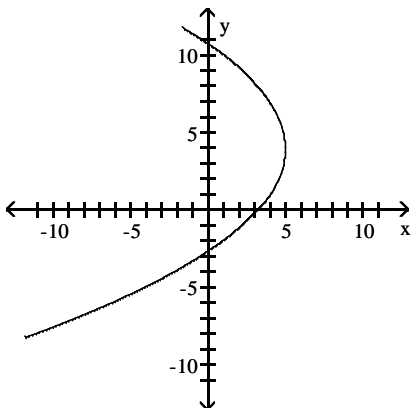
Graph.

5)  $f(x) = -3x + 4$

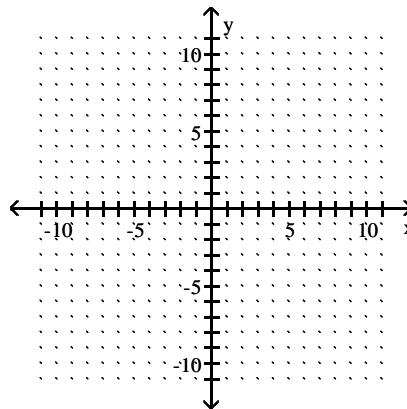


Determine whether the graph is the graph of a function.

2)



6)  $f(x) = -x^2 + 3$



Evaluate the function.

3) Given  $f(x) = \frac{x-7}{4x+1}$ , find  $f(2)$ .

Find  $f + g$  or  $f - g$  as indicated.

1)  $f(x) = x^2 + 3x - 9$ ,  $g(x) = 4x + 8$   
Find  $f + g$ .

4)  $f(x) = x^2 + 4x - 36$ ,  $g(x) = x + 9$

2)  $f(x) = 4x^2 + 15x$ ,  $g(x) = -11x^2 + 4x + 3$   
Find  $f - g$ .

**Find the indicated sum, difference, product, or quotient and then evaluate.**

5)  $f(x) = x - 8$ ,  $g(x) = 2x + 3$   
Find  $(f/g)(-4)$ .

Find  $f / g$ .

3)  $f(x) = 6x^2 + 46x - 72$ ,  $g(x) = x + 9$

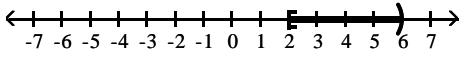
**Solve the problem.**

6) The function  $r(x) = 75x$  describes a company's monthly revenue and  $c(x) = 40x + 115,000$  describes the monthly costs where  $x$  represents the number of units produced and then sold. Find the function,  $p(x)$ , that describes the net profit or loss.

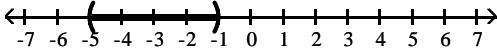
Answer Key WORKSHEET 8.1

Testname: W\_8\_1

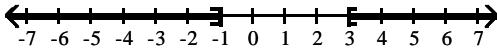
1)  $[2, 6)$



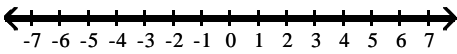
2)  $(-5, -1)$



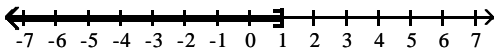
3)  $(-\infty, -1] \cup [3, \infty)$



4)  $(-\infty, \infty)$



5)  $(-\infty, 1]$

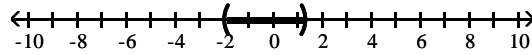


6)  $\emptyset$

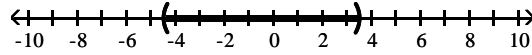
Answer Key WORKSHEET 8.3

Testname: W\_8\_3

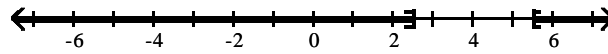
1)  $\left[-2, \frac{4}{3}\right)$



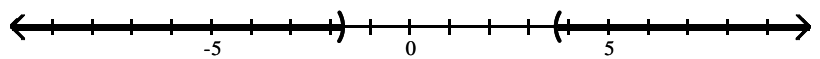
2)  $\left[-\frac{9}{2}, \frac{7}{2}\right)$



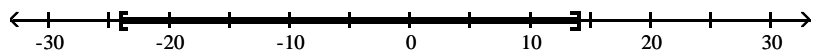
3)  $\left(-\infty, \frac{5}{2}\right] \cup \left[\frac{11}{2}, \infty\right)$



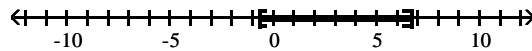
4)  $\left(-\infty, -\frac{5}{3}\right) \cup \left(\frac{11}{3}, \infty\right)$



5)  $[-24, 14]$



6)  $\left[-\frac{2}{3}, \frac{20}{3}\right)$



Answer Key WORKSHEET 8.2

Testname: W\_8\_2

1)  $\left\{-\frac{3}{2}, \frac{5}{2}\right\}$

2)  $\emptyset$

3)  $\left\{\frac{6}{5}, -\frac{12}{5}\right\}$

4)  $\left\{\frac{1}{3}, -\frac{5}{6}\right\}$

5)  $\left\{\frac{11}{2}, \frac{7}{4}\right\}$

## Answer Key WORKSHEET 8.4

Testname: W\_8\_4

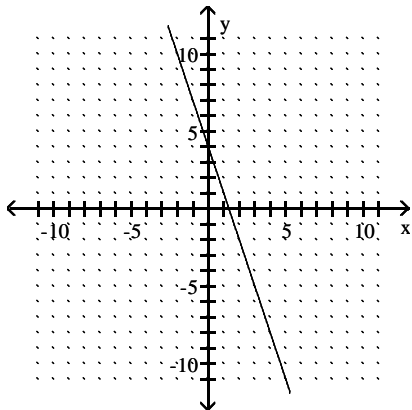
1) Domain: all real numbers; Range:  $\{y \mid y \leq 4.5\}$

2) No

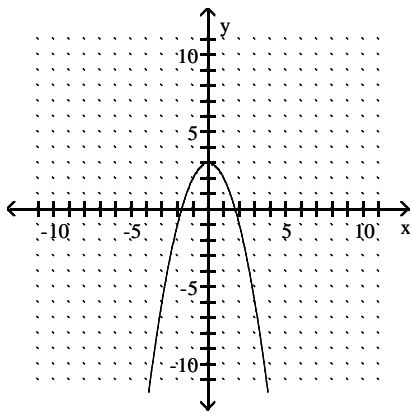
3)  $-\frac{5}{9}$

4) -14

5)



6)



## Answer Key WORKSHEET 8.5

Testname: W\_8\_5

1)  $x^2 + 7x - 1$

2)  $15x^2 + 11x - 3$

3)  $6x - 8$

4)  $x - 5 + \frac{9}{x+9}$

5)  $\frac{12}{5}$

6)  $p(x) = 35x - 115,000$