

## Cumulative 3-4 Review

Name \_\_\_\_\_

1) Solve each equation.

a)  $7 - \frac{w}{2} = 9$

b)  $2x - 4 = 2(x - 2)$

c)  $3x + 7 = 5x - 13$

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

e)  $7.4 + (-5.1x) + 3.2x = 20.8$

f)  $|4x - 2| = 12$

2) Solve each inequality and graph.

a)  $2(x - 4) \geq 6$

b)  $-\frac{m}{3} + 2 \leq 9$



c)  $2x + 10 \geq 7x + 7$



d)  $2x - 10 > 3(-x + 5)$



e)  $7 \leq 3x - 8 < 19$



f)  $-8x > 24$  or  $2x - 5 > 17$



g)  $|2x - 1| \leq 9$



h)  $|x - 4| > 2$



3) A rectangular pool is twice as long as it is wide. What are the dimensions of the pool if the perimeter is 42 yards?

4) A shopper's discount club charges a monthly fee of \$15 and sells gasoline for \$2.05 per gallon. The gas station across the street sells gasoline for \$2.35 per gallon and charges no fee. How many gallons of gasoline would you have to buy in one month to spend the same amount at either store?

5) A DVD club charges a monthly membership fee of \$4.95 and \$11.95 for each DVD purchased. If a Aaron's bill for the month was \$64.70, how many DVDs did Aaron purchase?

6) If it costs Mike \$11.79 in gasoline to drive 90 miles, how much will it cost him to drive 150 miles?

7) The sophomore class is putting on a variety show to raise money. It costs \$700 to rent the banquet hall they are going to use. If they charge \$15 for each ticket, how many tickets do they need to sell in order to raise at least \$1000?

8) Write an inequality for each situation.

a) A car dealership sells at least 35 cars each week.

b) No more than 425 tickets to a musical will be sold.

9) Write a compound inequality for each situation.

a) A car salesman has been told to sell a particular car for more than \$14,500 and up to the sticker price of \$15,755.

b) The width of a parking space needs to be at least 8 feet and no more than 11 feet.