

Alg 1 block Week 9 Warm-Up

Skill 3: Solve and graph on the number line. Specify the solution:

1. $9 < 3t + 6 \leq 15$

2. $3p + 1 \leq 7$ or $2p - 9 \geq 7$



Solution: _____



Solution: _____

Skill 4: Solve, showing all steps. State the solution and then graph the solution set on the number line.

3. $|6r - 3| < 21$

4. $|x + 5| - 8 = 12$



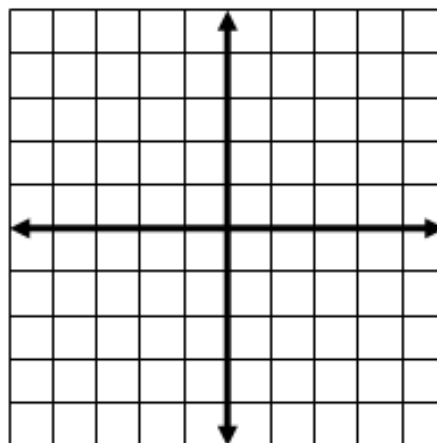
Solution: _____



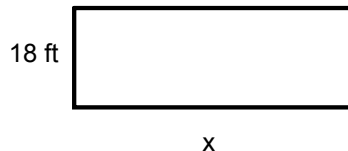
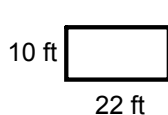
Solution: _____

5. Fill in the table, then graph and connect the points.

x	$y = -2x + 1$	y
-3		
-2		
-1		
0		
1		
2		



6. Use proportions to find the missing value in these similar polygons.



x

4-4 Graphing a Function Rule

Objective: To graph equations that represent functions.

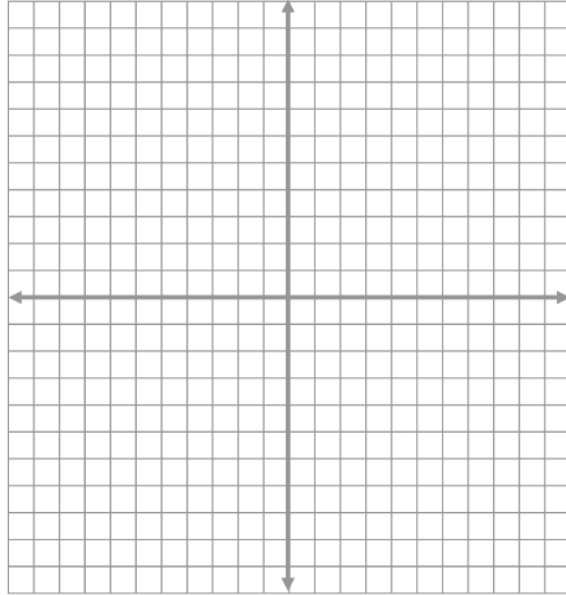
pg 254/2a The function rule $W=8g+700$ represents the total weight W , in pounds, of a spa that contains g gallons of water. What is a reasonable graph of the function rule, given that the capacity of the spa is 250 gal?

b) What is the weight of the spa when empty? Explain how you know.

Step 1: make a table of values

x		y

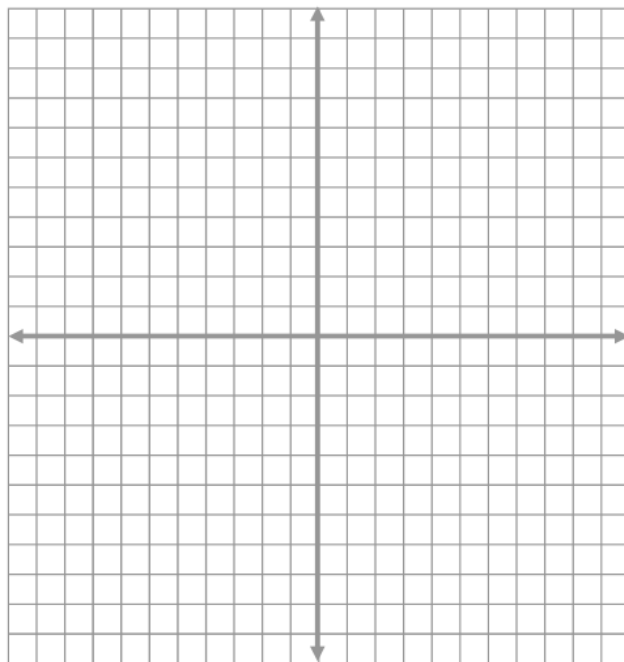
Step 2: graph the ordered pairs from the table



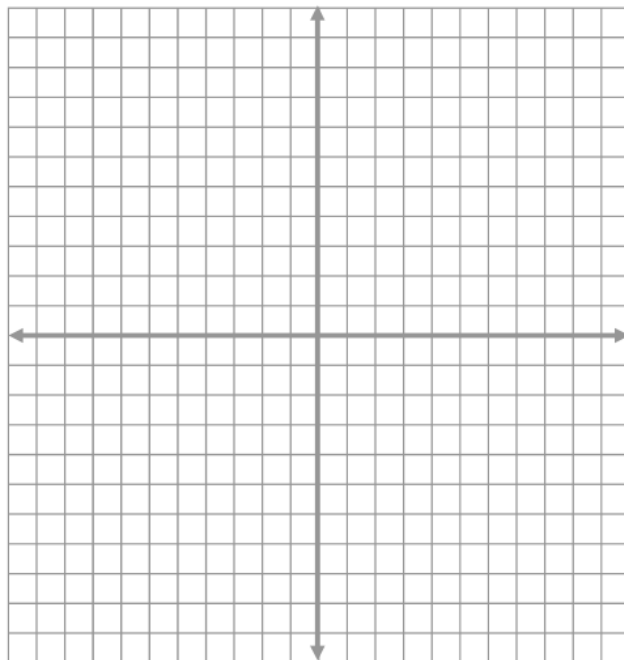
Example

What is the graph of each function rule?

x	$y = x - 4$	y



x	$y = -x^2$	y



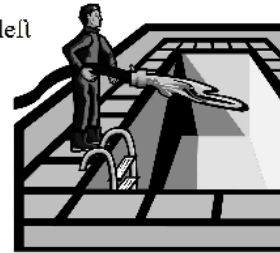
Alg 1 wk 9 Block CW All Lined Up some more!



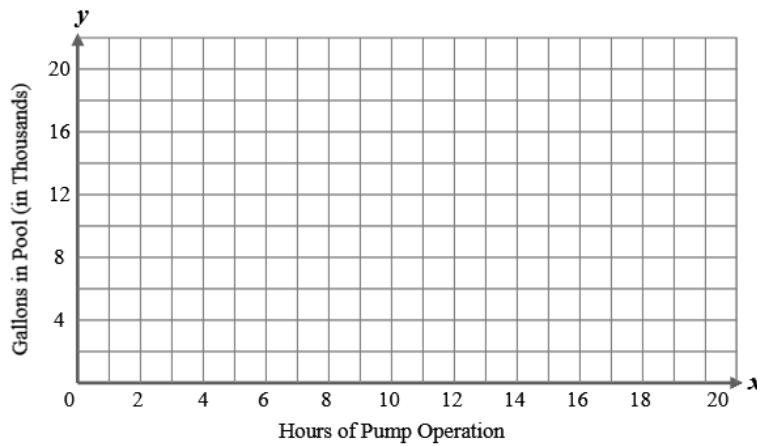
Paul is draining his swimming pool to replace the liner. He knows that his pool contains 15,000 gallons of water. He is draining it with a pump that pumps out 1,000 gallons per hour. We can use x to represent the number of hours pumped and y to represent the number of gallons left in the pool. An algebraic equation (or *formula*) for this situation could be expressed as:
 $y = -1000x + 15000$.

8. Complete the following table to show the number of gallons of water left in the pool.

# Hours (x)	0	5	10	15
# Gallons Left (y)				



9. Graph the ordered pairs from the above table on the grid below and draw a line through the points.



10. Explain what the number 15,000 in the formula represents.
11. Explain what the number $-1,000$ in the formula represents. Why is it negative?
12. Substitute 20 hours into the formula. What is the result? What does it mean?
13. After how many hours should the pool be empty? Show your work.

CW cont'd

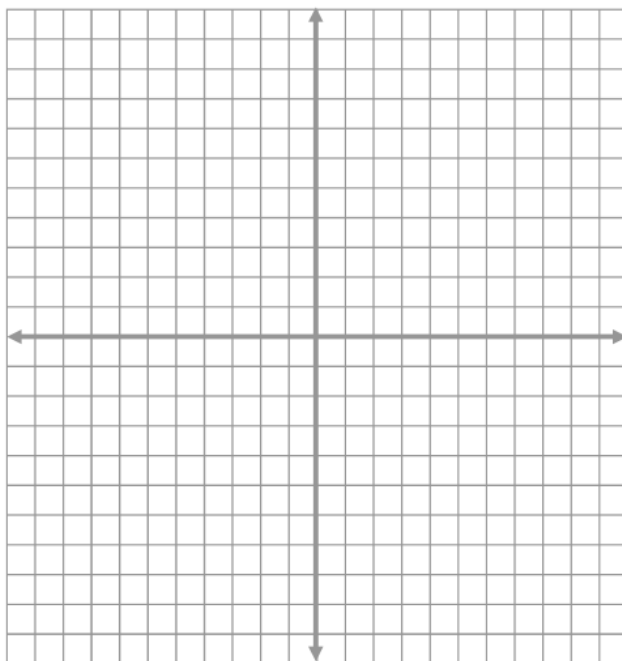
Use your CW worksheet to draw the graph for each function rule:

14. $y = x^2 + 1$

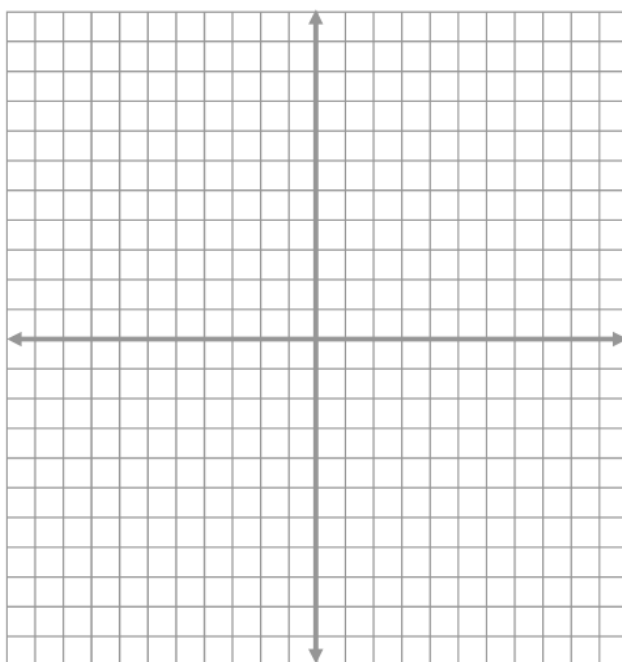
15. $y = |x| - 7$

CW

x	$y = x^2 + 1$	y

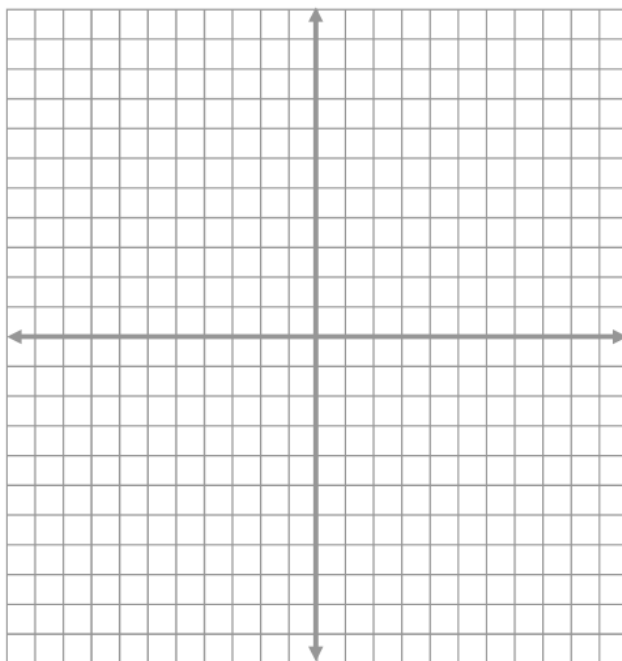


x	$y = x - 7$	y

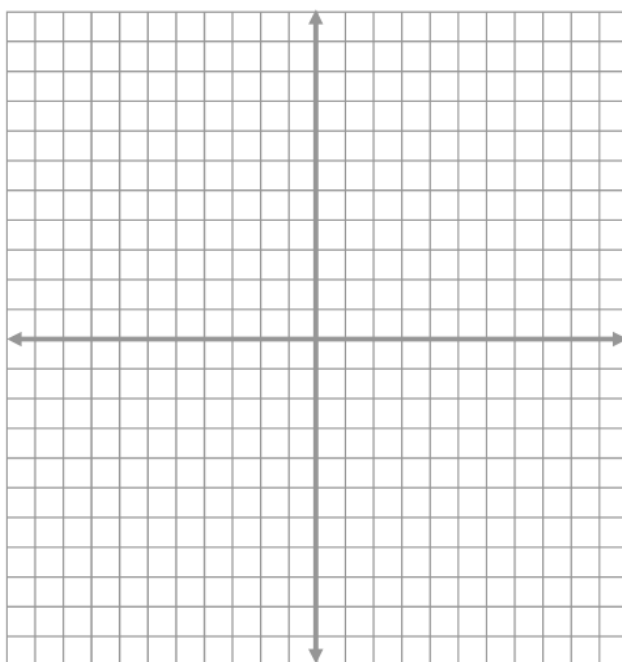


HW; 4 graphs

x	$y = 3x - 2$	y

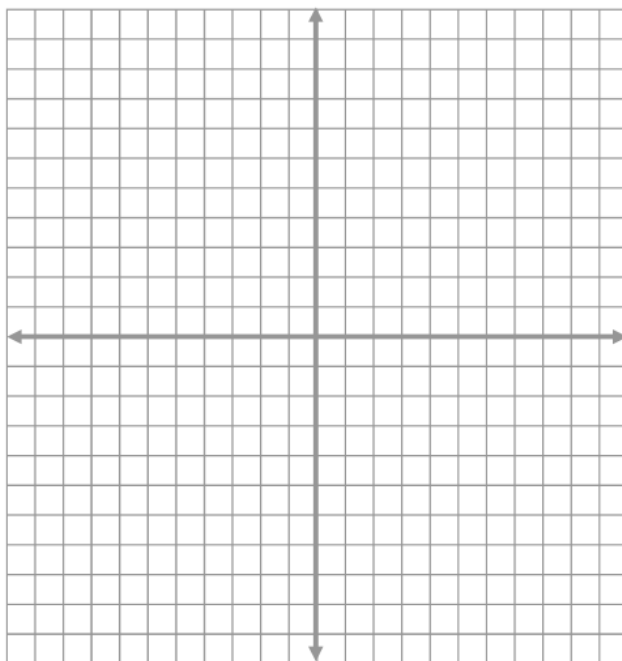


x	$y = -\frac{1}{2}x + \frac{1}{2}$	y



HW

x	$y = x + 2$	y



x	$y = -2x^2$	y

