

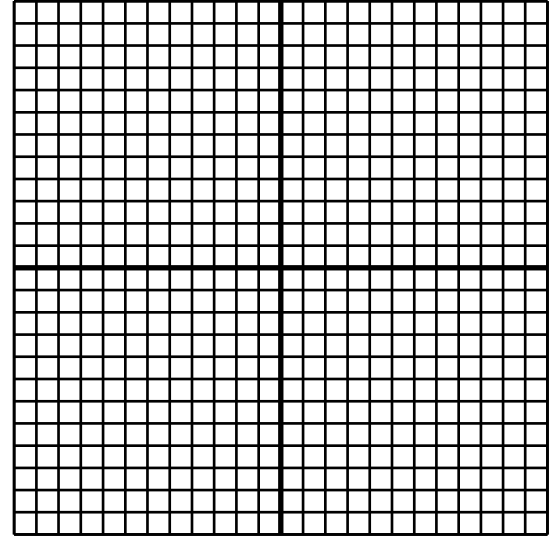
Linear Functions (Unit 2) Review Part 2

Name: _____

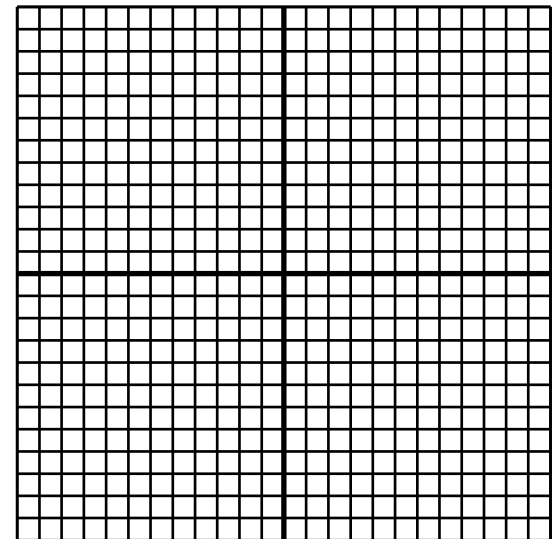
Period _____

Directions: Graph each pair of linear functions on the coordinate plane to the right.

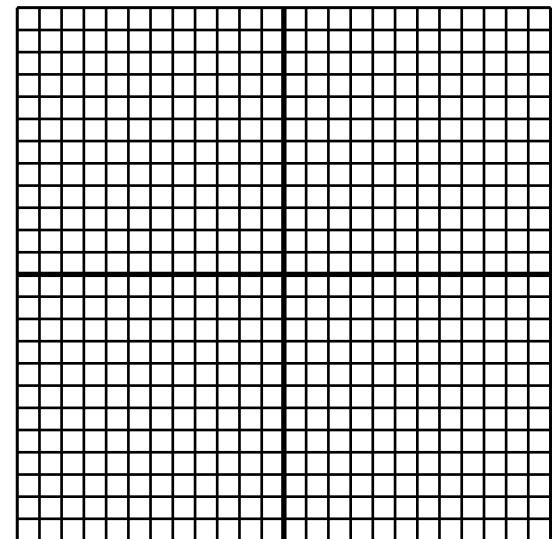
1. $y = -\frac{1}{2}x + 3$



2. $y = -\frac{3}{2}x - 4$



3. $y - 5 = \frac{3}{4}(x + 4)$



4. $y - 6 = -\frac{2}{5}(x - 2)$

5. $5x - 3y = -15$

6. $x + 4y = 12$

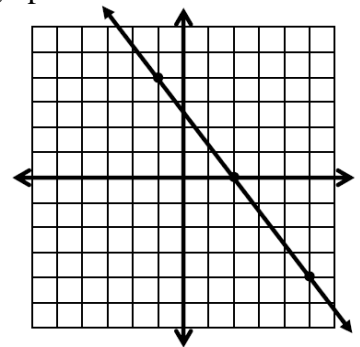
Directions: Find the equation in the correct form of each line with the given information. **Show all work.**

7. What is the **point-slope form** of the linear function that has a slope of $\frac{3}{2}$ and goes through $(-3, 7)$?
8. What is the **slope-intercept form** of the linear function that goes through $(-2, 3)$ and $(6, -1)$?

9. What is the **slope-intercept form** of the linear function that has the following table?

x	-8	-4	0	4	8	12	16
y	21	15	9	3	-3	-9	-15

10. What is the **point-slope form** of the linear function that has the graph?



11. What is the **point-slope form** of the linear function goes through $(4, 8)$ and $(-5, 3)$?
12. What is the **slope-intercept form** of the linear function that is **parallel** to $y - 3 = -\frac{2}{3}(x + 8)$ and goes through $(-4, -8)$?

13. What is the **slope-intercept form** of the linear function that has a slope of $-\frac{5}{4}$ and goes through $(-7, -1)$?

14. What is the **point-slope form** of the linear function that is **perpendicular** to $3x - 2y = -16$ and goes through $(-8, 3)$?

15. What is the **point-slope form** of the linear function that has the following table?

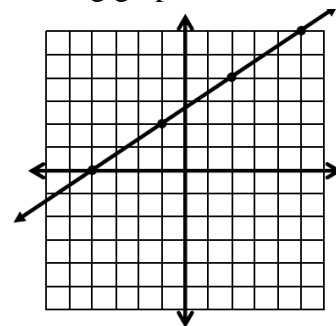
x	-12	-6	0	6	12	18	24
y	20	11	2	-7	-16	-25	-34

16. What is the **slope-intercept form** of the linear function that is **perpendicular** to

$$y - 8 = -\frac{3}{4}(x + 12) \text{ and goes through } (9, 2)?$$

17. What is the **point-slope form** of the linear function that is **parallel** to $4x - y = -12$ and goes through $(4, -8)$?

18. What is the **slope-intercept form** of the linear function that has the following graph?



Directions: Find the linear function in slope-intercept form. Then using the function to answer the 2 questions.
Show all work.

19. Monty works as a car salesman, getting a weekly salary and a commission. One week he sold \$34,500 in cars and made \$5,425. Another week he made \$3,040 when he sold \$18,600 worth of cars. What is the function for Monty's earnings?

How much would he earn if he sold \$25,000?

How much would he have to sell to earn \$4,500?

20. A swimming pool is full of water. The drain is opened and the water drains at a rate of 50 gallons per minute. After 30 minutes, there are 10,300 gallons of water still in the pool. What is the function for the amount of water in the swimming pool?

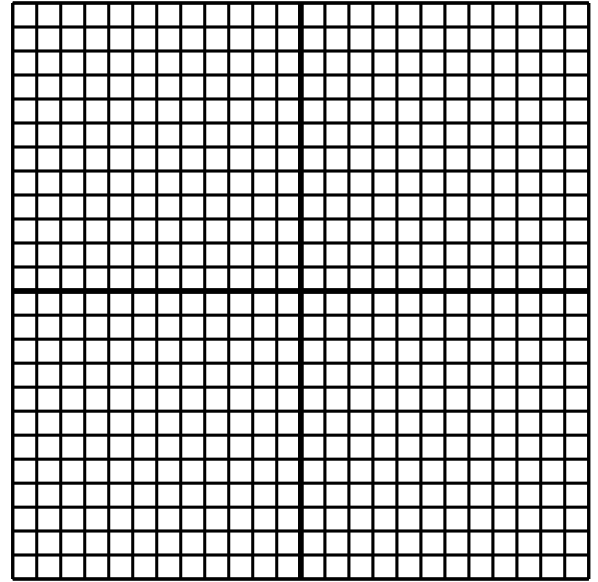
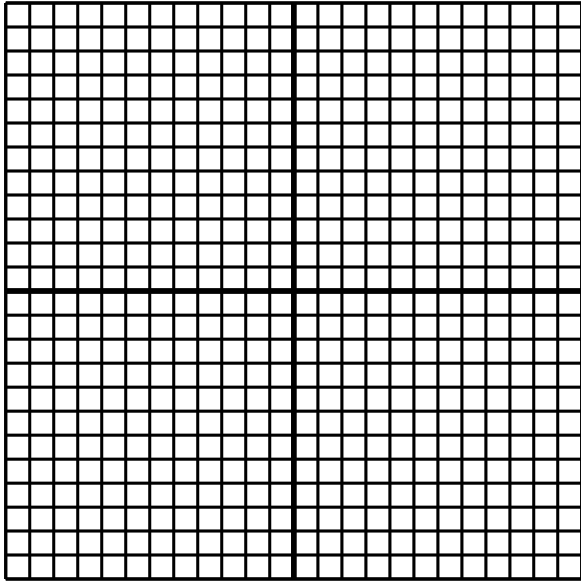
How long will it take for the swimming pool to become empty?

How much water was there in the swimming pool bath tub after 180 minutes?

Directions: Graph each inequality and shade the correct region of solutions.

21. $y + 7 < -\frac{3}{4}(x - 6)$

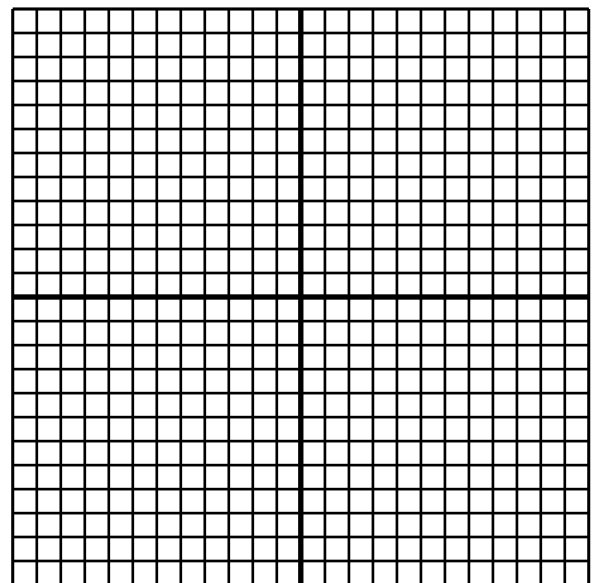
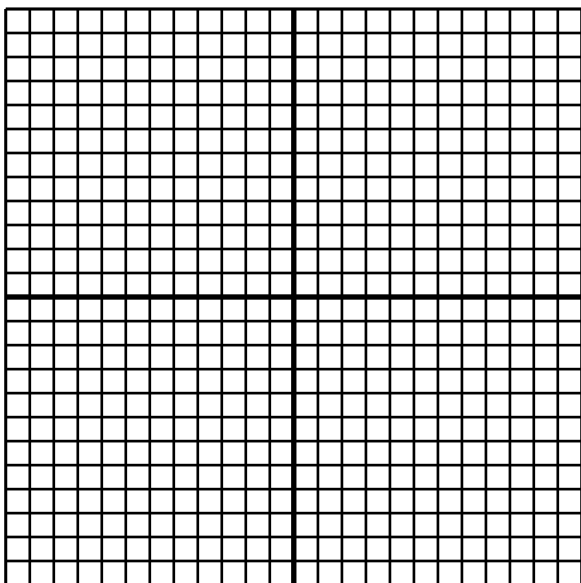
22. $3x - 2y \geq -12$



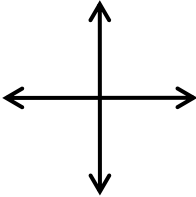
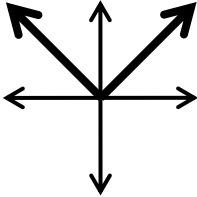
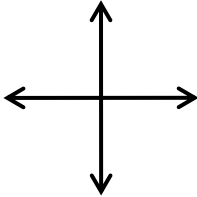
Directions: Graph each absolute value function.

23. $y = \frac{2}{3}|x - 5| + 3$

24. $y = 3|x + 4| - 8$



Directions: Complete the parent function chart.

PARENT FUNCTION:			
FUNCTION EQUATION:	$f(x) = x$		
GRAPH:			
DOMAIN IN SET NOTATION:			
RANGE IN SET NOTATION:			$\{y \mid y = c\}$