Name _____ Date _____ Hour _____

Algebra 2 REVIEW: Sections 2-1 to 2-5

Determine whether the following are functions. Write yes or no. If no, explain why not.

1. {(2,1), (3,3), (2,7), (0,0)}

2. $y = 2x + 1$

3. Find the domain and range for the following relation. Then determine if the relation is a function
   a. {(-3,1), (0,2), 2, 5)} D:_____ R:_____ Function: yes/no
   b. {(6,3), (2,1), (-2,3)} D :_____ R:_____ Function: yes/no
   c. {(-5,2), (2, 4), (1,1), (-5, -2)} D :_____ R:_____ Function: yes/no

4. Find each value if f(x) = 5x-9
   a. f(6) b. f(-2) c. f(y) d. f(-2v)

5. Find each value if g(x) = -2x +10
   a. g(-2) b. g(0) c. g(y) d. g(w -4)

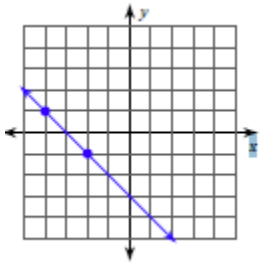
Determine the slope of the line passing through each pair of points.

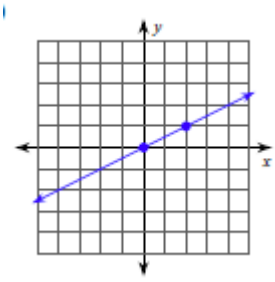
6. (-3,5) (6,-9)

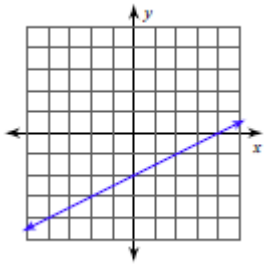
7. (4, 1) (4, 0)

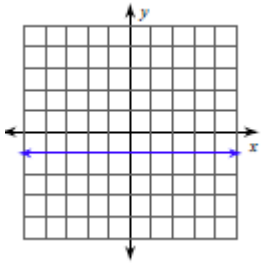
8. (-2,2) (5,2)

9. Find the equation for the given lines in slope-int. form.
   a. _____ b._____ c. _____ d. _____









10. A Park Ranger at Blendon Woods estimates there are 6000 deer in the park. She estimates that the population will increase by 75 deer each year thereafter. Write an equation that represents how many deer will be in the park in x years.

11. Are these lines parallel, perpendicular or neither? Explain. $y = 3x - 1$ and $3x - y = -2$

12. Are these lines parallel, perpendicular or neither? Explain. $2x - y = -1$ and $-2x - 4y = 20$

Write an equation in slope-intercept form that satisfies each condition.

13. $m = -1$ passes through $(5,2)$

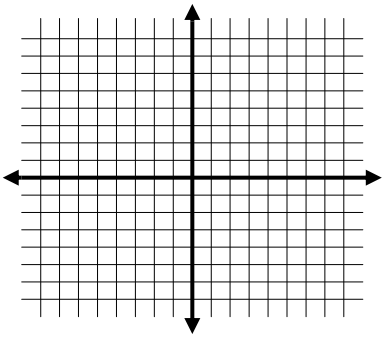
14. Passes through $(2,3)$ and $(4,9)$

15. passes through $(2,1)$ and parallel to the line $y=4x - 1$

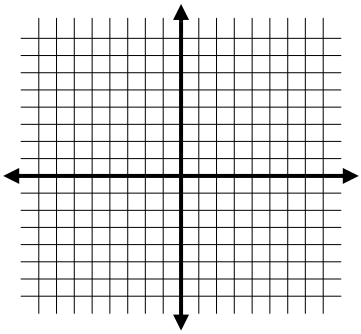
16. x-intercept: 2 and y-intercept: -5

Graph the following linear equations.

17. $y = \frac{2}{3}x - 5$



18. $x + y = 3$

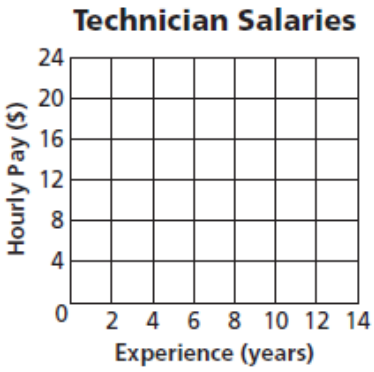


19. What kind of line is $y = -9$

20. What kind of line is $x = -2$

SALARIES **The table below shows the years of experience for eight technicians at Lewis Techomatic and the hourly rate of pay each technician earns. Use the data for Exercises 1 and 2.**

Experience (years)	9	4	3	1	10	6	12	8
Hourly Rate of Pay	$17	$10	$10	$7	$19	$12	$20	$15

1. Draw a scatter plot to show how years of experience are related to hourly rate of pay. Draw a line of fit.

2. Write a prediction equation to show how years of experience (x) are related to hourly rate of pay (y).