Review WS 5.1 - 3 name:_____

Find an equation of the line. Justify your answer algebraically.

1. (-2, -1)slope 5

2. (-1,3)(-2,3)

3. (8, -4) slope $-\frac{3}{4}$

4. slope 0 y-intercept 5

5. slope-3 y-intercept 0

6. slope $\frac{2}{3}$ y-intercept -8

7. (-1, 1) (-3, 3)

8. (3, -6) slope $\frac{1}{3}$

9. (3, -2) (-6, 1)

10. x-intercept -5 y-intercept 2

11. (-4. 5) slope 0

12. x-intercept 4 slope -2

13. Write an equation that represents the cost, y, of renting a pontoon boat for $20 per hour for x hours.

14. Write an equation that represents the cost y; of renting a beach chair for a flat fee of $20.

15. In September your math class begins with 21 students. In every month after September, two students drop and three new students join. Write an equation where **y** represents the number of students and **x** represents the number months after September.

16. In 1980, the population of Canton was 10,000. During the next 10 years the population increased by 2000 people per year. Write a linear equation that gives the population of Canton in terms of the year, x. Let x = 0 correspond to 1980.

16b. Use the equation to find the population of Canton in 1992. Justify your answer algebraically.

17. Between 1980 (year 0) and 1990, the population of Holly Springs Increased by 500 people per year. In 1986, the population of Holly Springs was 15,000. Write a linear model that gives the population, y, of Holly Springs

18. In 1983, the population of Woodstock was 20,000. In 1986, the population of Woodstock was 32,000. Write an equation that gives the population, y, of Woodstock In terms of the year. Let year zero correspond to 1980.