017 Practice test 3

1. Find 3 points on the line given by the equation \( y = 2x - 4 \)

\((__,__)(__,__)(__,__)\)

2. Find 3 points on the line given by the equation \( y = -x + 2 \)

\((__,__)(__,__)(__,__)\)

3. Find 3 points on the line given by the equation \( x = 7 \)

\((__,__)(__,__)(__,__)\)

4. Find 3 points on the line given by the equation \( y = -5 \)

\((__,__)(__,__)(__,__)\)

5. Find 3 points on the line given by the equation \( y = \frac{2}{3}x - 4 \)

\((__,__)(__,__)(__,__)\)

6. – 10. Graph each of the lines above.

11. Plot the points \((-1, 2), (0, 4), (1, 6)\)

12. For the line given by the three points above, what is the rate? \( r = ____ \)
13. For the line in problem 11, what is the y-intercept? \( b = \) _____

14. What is the equation for the line. Your answer should look like \( y = rx + b \)

15. Repeat the process to find the equation for the line through the points \((1, 2), (3, -1)\)

16. Repeat the process to find the equation for the line through \((4, 2), (4, 5)\)

17. Graph the lines in problems 14, 15, 16.

18. Find the point of intersection for the lines given by the equations
   \( y = 3x - 2 \)
   \( y = x + 6 \)

19. Find the point of intersection for the lines given by the equations
   \( y = \frac{1}{2}x + \frac{3}{2} \)
   \( y = \frac{4}{3}x - \frac{5}{3} \)

20. Find the point of intersection for the lines given by the equations
    \( y = .05x + 85 \)
    \( y = .03x + 105 \)

22. Suppose a rental car costs $85 a week plus 5 cents a mile. Write the amount you have to pay in one week as a linear equation, where \( y \) is the amount you pay and \( x \) is the number of miles you drive.

23. Do the same for a rental car that cost $105 a week plus 2 cents a mile.

24. How many miles would you drive to pay the same amount for each plan?

25. What is that amount?

26. You want to make t-shirts with a company logo. The manufacturer charges flat rate for setting up the machine and a certain amount per t-shirt. 50 t-shirts cost $275 while 100 t-shirts cost $450. What is the price per t-shirt and what is the flat rate?