## Ch 4 Study Guide

Name:
Period: $\qquad$ Date: $\qquad$
1.) Which of the following points is on the line $y=-2 x+1$ ? Show your work or explain how you decided.
a. (0, -2)
b. $(-2,0)$
c. $(-1,3)$
d. $(3,-1)$
e. (10, -19)
2.) Study the tile pattern below.

Fig 1

Fig 2

Fig 3

Fig 0
Fig 4
a. Draw Figure 0 \& 4 .
b. Write an equation (rule) for the number of tiles in the pattern.
3.) Betty has a new part-time job walking dogs after school. The equation $y=10 x+20$ shows the relationship between her hours of work $(x)$ and the amount of money in her bank account $(y)$.
a. How much money did she have in her bank account before he started working? How can you tell from the equation?
b. How much is Betty earning per hour? Justify your answer.

Solve for $x$. Show your work.
4) $3 x-4=8 x+7-4 x$
5) $4(x-5)=20$
6) $2 x-2(3 x+4)=2 x+4$
7) $2(3 x-2)-3(x-4)=2 x+1$
8.) Graph the following rules on one set of axes. Label each line with its equation. Highlight the line the following colors.
a. $y=2 x-1$ (pink)
b. $\quad y=-3 x+4$ (yellow)
c. $y=x+2$ (green)

9.) Write an equation for each graph below.



