**Assignment: Systems of Linear Inequalities**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_

**Graph the system of linear inequalities.**

1. $y\geq 4x-4$ 2. $x+y>5$ 3. $2x+2y\leq 4$

 $y\geq \frac{1}{3}x-3$ $x-y<-3$ $3x-y>1$

Is (-3, -4) a solution? \_\_\_\_ Is (5, 0) a solution? \_\_\_\_ Is (0, -4) a solution? \_\_\_\_

![[image]]()![[image]]()![[image]]()

4. $5x-y>0$ 5. $3y\geq 2x-3$ 6. $x+y>-2$

 $y\leq x$ $y\geq 3x+8$ $-2x+y\leq 2$

![[image]]()Is (-3, 3) a solution? \_\_\_\_ Is (2, 4) a solution? \_\_\_\_ Is (-4, 2) a solution? \_\_\_\_

![[image]]()![[image]]()

7. $x\leq 1$ 8. $y\leq x$

 $y\leq 3x+2$ $y\leq -x+2$

 $y\geq -3x-6$ $y\geq -6$

Is (-1,5) a solution? \_\_\_\_ Is (2, -4) a solution? \_\_\_\_

![[image]]()![[image]]()

9. Which of the following systems of inequalities describes the graph shown?

 A.  C. 

 B.  D. 

10. A class fundraiser is charging $7 per car wash *w* and $4 per cake *c* sold. The cakes cost $2 to make and the supplies for the car wash cost $1 per car. They will wash less than 50 cars and bake no more than 30 cakes. They want to make a profit of at least $320 to give to a local charity. What system represents this situation?

F. $w<50$ G. $w<50$ H. $w<50$ J. $w<50$

 $c\leq 30$ $c\leq 30$ $c\leq 30$ $c\leq 30$

 $w+ c\leq 320$ $6w+ 2c\geq 320$ $5w+3c\geq 320$ $7w+ 4c\geq 320$