NAME: **Final Inequality Exam**

Please Circle One Answer For The MC Questions.
If you circle more than one, I will not grade that question.
Multiple Choice:

1. ***y > mx + b could be read as***
   a. y is exactly mx+b
   b. y is less than mx+b
   c. y is equal to mx+b
   d.y is greater than mx+b

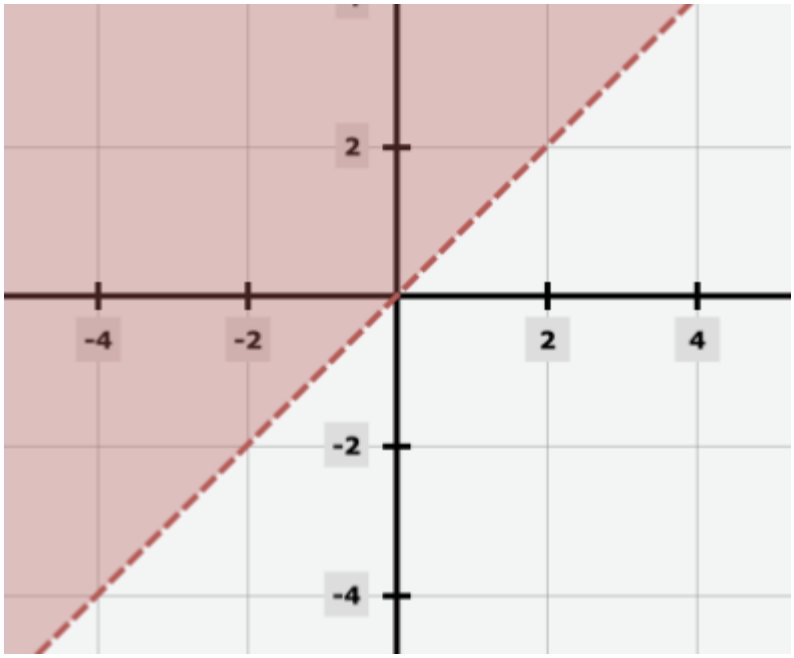
2. ***The graph of y < 5x+4 will have:***
   a. Dashed Line, Shading Below
   b. Dashed Line, Shading Above
   c.Solid Line, Shading Below
   d. Solid Line, Shading Above

3. ***Sana works part-time in event management earning $17 per hour.***
   She also does freelance carpentry projects for $70 per hour.
   She wants to earn more than $8000 per week.
   If x and y represent hours worked at each job, which inequality represents the situation?
   a. 17x + 70y > 8000
   b. 8000x + 17y > 70
   c. 17x + 70y < 8000
   d. 8000x + 17y < 70

4. ***Quentin works as a used car salesman, where he earns $8 per hour and an average commission of $260 per car sold. He wants to earn at least $1040 per week. What inequality best represents this situation?***
   a. $8x + 260y \leq 1040$
   b. $268x \geq 1040$
   c. $x < y < 1040$
   d. $8x + 260y \geq 1040$

5. ***Which is a valid solution to the inequality*** $2x + y < 4$
   a. (3,0)
   b. (2, 1)
   c. (1, 2)
   d. (0, 3)

6. ***This is a graph of***



a. $y \leq x$
b. $y < x$
c. $y \geq x$
d. $y > x$

7. ***How many real numbers are in the solution set of*** $y > 2x$

a. 0
c. 3
c. Infinite
d. 1

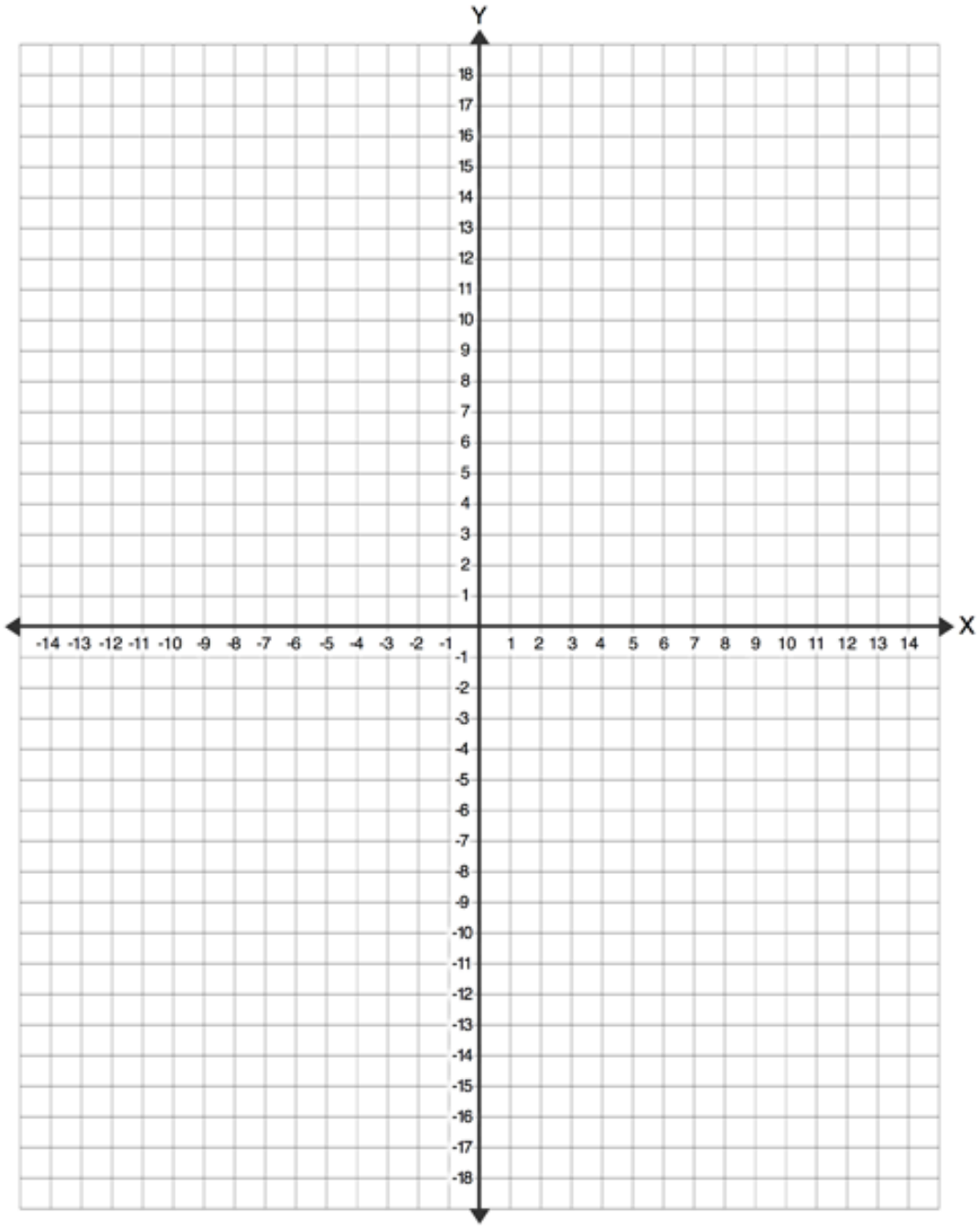
Written Response:

1. ***During the summer my friend Carla worked two jobs; Let x represent hours spent per week at job 1 and y hours spent per week at job 2, Karla wanted to work less than 60 hours per week. Write an inequality that represents the scenario.***

2. ***Is the point (10, 5) a solution to the inequality in question 1?***

3. ***If Carla earned $28 per hour at her first job and $66 per hour at her second job and wanted to earn more than $900 per week, write an inequality that represents this scenario.***

4. Graph the inequality 2y - 2x < 20



OPTIONAL EXTRA CREDIT:

Write down or draw something you learned in Algebra 1 that I did not test on the exam: