

## Unit 4 Culminating Task: You're The Boss!



Name(s): \_\_\_\_\_

Date Due: Mon. 11/11

Congrats! You have decided to start up your own company! As part of this task, you are going to outline the wages of yourself and two of your employees. You will incorporate the key concepts of Unit 4: equations and inequalities! **Your final presentation can be done as a PowerPoint, Sway, video, booklet, poster, brochure, etc.** Be sure to include ALL information below. You may work independently, with a partner, or in groups UP TO 3. (If you work in a pair, you need 6 jobs; if you work with a group of 3, there must be 9 jobs.)

### Part I: Business Planning (70 points):

- A. What is the name of your company? Give a brief description of your company. Be creative and have fun with this!
- B. Now, describe your job AND the jobs of two of your employees (THREE jobs total). For each job, include:
  - a. Job title
  - b. Brief description of the job (what does the employee have to do?)
  - c. Hourly rate of pay
  - d. The equation that relates  $x$  (hours worked) and  $y$  (total pay)
  - e. A table of  $(x,y)$  values to reflect how much money is earned  $x$  hours
  - f. Determine the weekly, monthly, and yearly income for each. (40 hours per week; 170 hours per month; and 2040 hours per year... substitute these for  $x$ )
- C. Graph your equations of all 3 jobs. Plot all three lines on the same graph so they are easy to compare!  
*\*If you are working in a pair, you must include 6 jobs. If you are working in a group of 3, include 9 jobs.*

### Part II: It's Your Business, Do Your Thing! (15 points)

Write 3 different inequalities that relate to your business. Each must include...

- a. ...a variable, and explain what the variable represents. Use 3 different inequality symbols.
- b. Graph each inequality on a number line.

Example: Sweeper Sara has no more than 5 employees working at a time.  $x \leq 5$

### Part III: Final Details (15 points)

Answer the following. Include the question and the answer.

1. Explain what the independent ( $x$ ) and dependent ( $y$ ) variables represent, and how they relate to each other.
2. Compare and contrast equations and inequalities.
3. Decide on a location for your company, and look up the median income for that city. How does your annual income compare?

### BONUS: Presentation (5 points)

"You're The Boss!"  
Project Draft



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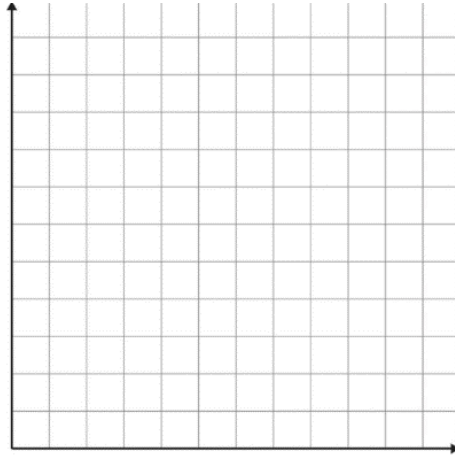
**Part I: Business Planning (70 points):**

Name of your company: \_\_\_\_\_

Mission of your company: \_\_\_\_\_

<b><u>Your Job</u></b>	<b><u>Employee #1</u></b>	<b><u>Employee #2</u></b>																																				
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Graph your equations for all 3 jobs:



**Part II: It's Your Business, Do Your Thing! (15 points)**

Write 3 different inequalities that relate to your business, and represent those inequalities on number lines. Each must include a variable and a brief explanation of what the variable represents. Use 3 different inequality symbols.

**Part III: Final Details (15 points)**

Answer the following. Include the question and the answer, or write your answers in complete sentences.

1. Explain what the independent ( $x$ ) and dependent ( $y$ ) variables represent, and how they relate to each other.
2. Compare and contrast equations and inequalities.
3. Decide on a location for your company, and look up the median income for that city. How does your annual income compare?