4.1B Linear Inequalities Application Problems

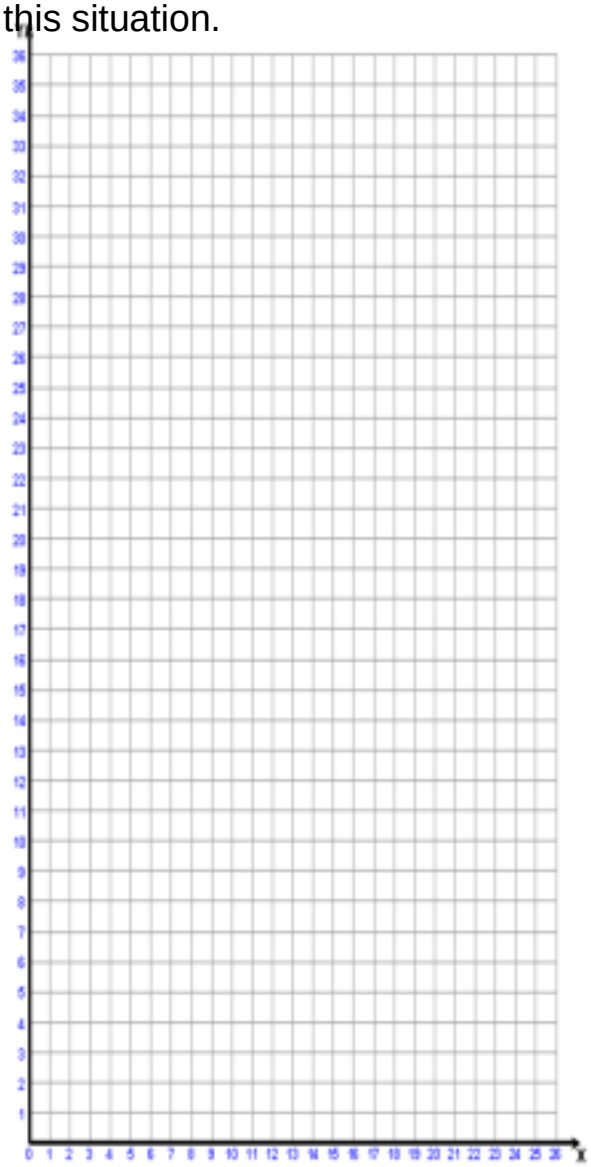
Similarities to Linear Inequalities

- rewrite inequalities from standard form to point-slope form
- graph with dashed or solid lines
- shade

Differences to Linear Inequalities

- create the original inequality from a word problem
- working with positive quantities only
- only graph using quadrant 1
- analyze the data and answer related questions

At Barney's Garage, it takes a average of 1 hour for a tune-up and oil change, and an average of 6 hours to replace a transmission. If Joseph, the chief auto mechanic, puts in no more than 42 hours a week, write an inequality in standard form that describes this situation.



Graph your equation.

What is the maximum number of EACH job he can do?

max number of
oil changes/tune-ups

max number of
transmission replacements

What does (12,4) mean?

Will Joseph have enough time to
do other tasks in the garage?
If so, how much?

Explain what you must do before you can begin graphing linear inequality application problems.