

Abhi has two part time jobs: **McDonalds** and **Lawn care**

-- He would not feel comfortable working any more than 25 hours per week between both jobs

**x** is the number of hours Abhi works at McDs  
**y** is the number of hours Abhi works at lawn

This is a restriction – it can be represented by an INEQUALITY

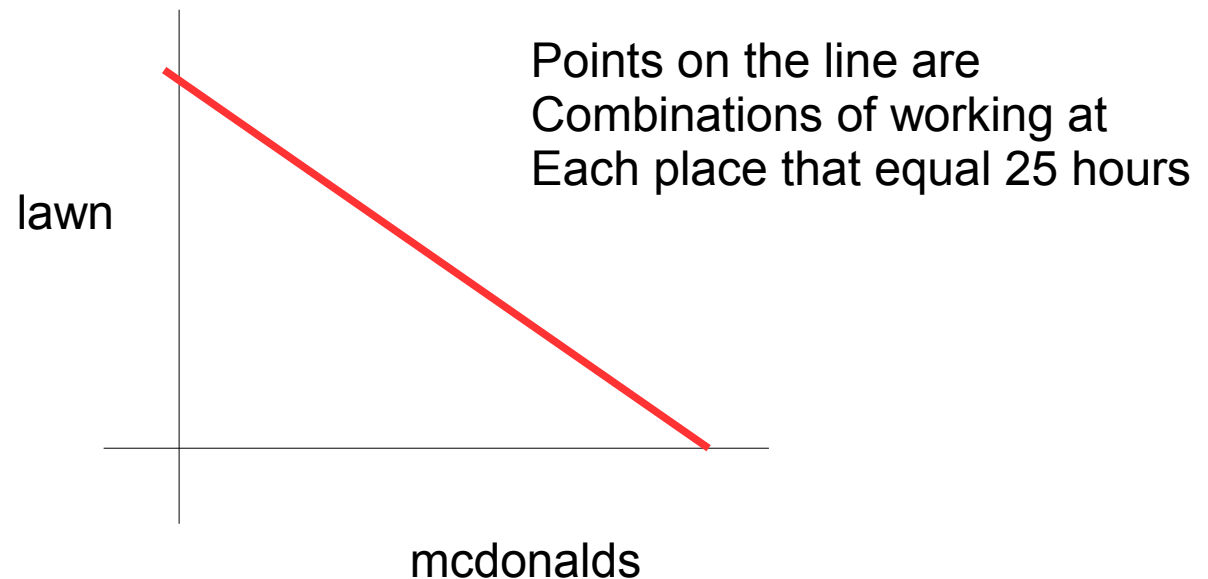
$$x + y \leq 25$$

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In order to graph this **INEQUALITY**, we need  
To isolate the  $y$

On the calculator, we enter  $[Y=]$

$$x + y \leq 25$$
$$y \leq 25 - x$$

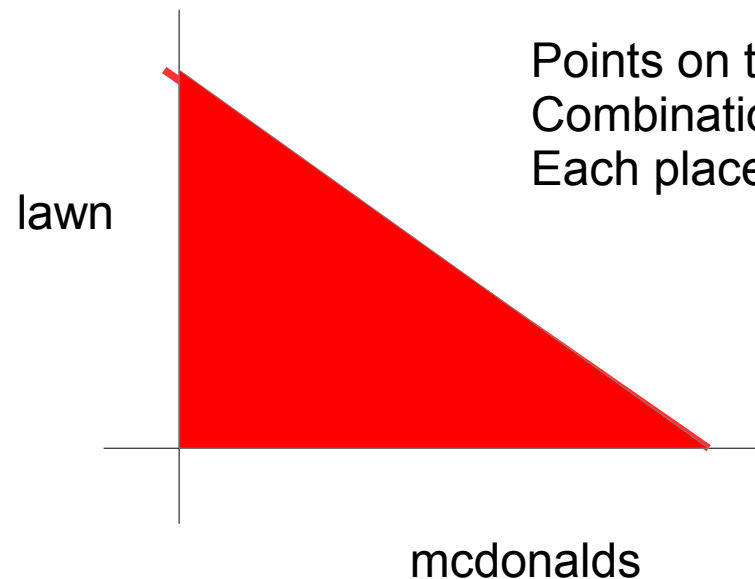


Abhi has two part time jobs: **McDonalds** and **Lawn care**

Abhi is actually OK with working less than 25 hours (just not more)

On the calculator, we change  $\backslash$  to  $\leq$  to enter 

$$x + y \leq 25$$
$$y \leq 25 - x$$



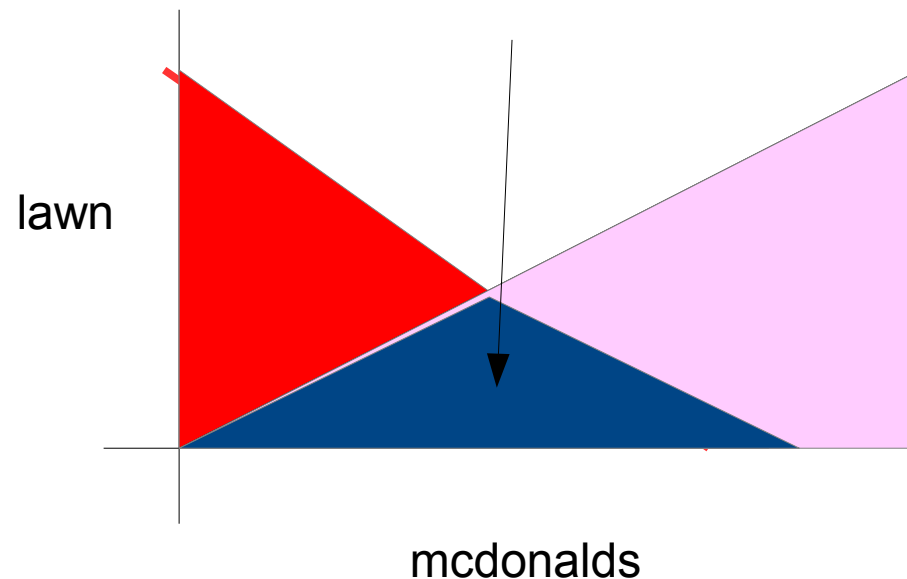
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We're going to add another restriction:  
Abhi prefers to work at McDonalds so he wants to always work **MORE** hours at McDs than at the lawn care

$$x > y$$

$y < x$  to graph

The darkest region (where both are shaded) are our successes) where Every restriction is met



# Writing: Design a situation that includes

-- Description of a decision you have to make  
Between two competing demands

-- Assign variables  $x$  and  $y$  to each of the  
Demands

-- Write a description of two different  
Restrictions to your scenario (create the  
Inequalities for each restriction)

-- Sketch a graph and indicate the region  
that you want