I. Linear Inequality in One Variable:

\[ ax + b \geq c \]  
(general form)

where \(a, b\) and \(c\) are constants  
(\(<, \leq, >, \geq\) are also possible)

\[ e.g., \ 2x + 5 < 13 \quad (a = 2, \ b = 5, \ c = 13) \]

II. Method for Solving (p.256):

Manipulate (+, -, \times and/or \div) the inequality as if it were an equation in order to isolate the variable on one side; 
EXCEPT — REVERSE the inequality SIGN whenever MULTIPLYING (or DIVIDING) by a NEGATIVE 

\[ e.g., \ 2x + 5 < 13 \]

\[ 2x < 8 \text{ after subtracting 5} \]

\[ x < 4 \text{ after dividing by 2} \]

Note: the solution is ALL numbers less than 4  
(i.e., an infinite set of numbers)
III. Examples (p.262): Exercises #14,20,30,38

HW: p.262 / Exercises #3,13,15,17,19,25,33
Read pp.266-271 (section 4.2)