

I. General Form: $ax + b \geq c$

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

e.g., $2x + 5 < 13$ ($a = 2, b = 5, c = 13$)

II. Method for Solving:

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., $2x + 5 < 13$

$2x < 8$ after subtracting 5

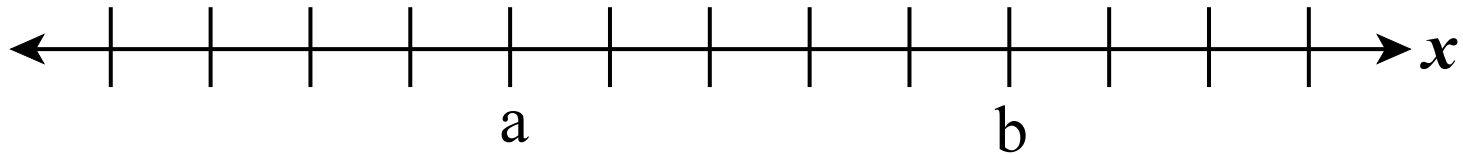
$x < 4$ after dividing by 2

Note the solution is ALL numbers less than 4

(*i.e.*, an infinite set of numbers)

III. Graphing & Inequality Notation (p.167):

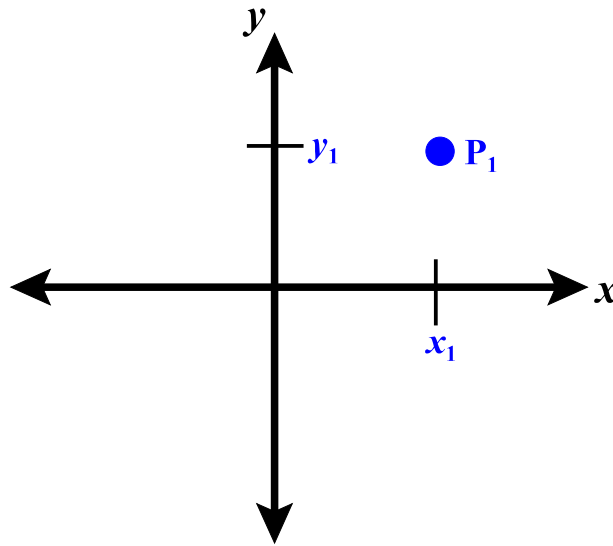
$$\mathbf{x} < \mathbf{a} \quad \text{or} \quad \mathbf{x} \geq \mathbf{b}$$



IV. Examples (p.174): Problems #2-58(even)

HW: p.174: Problems #1-57(every other odd)

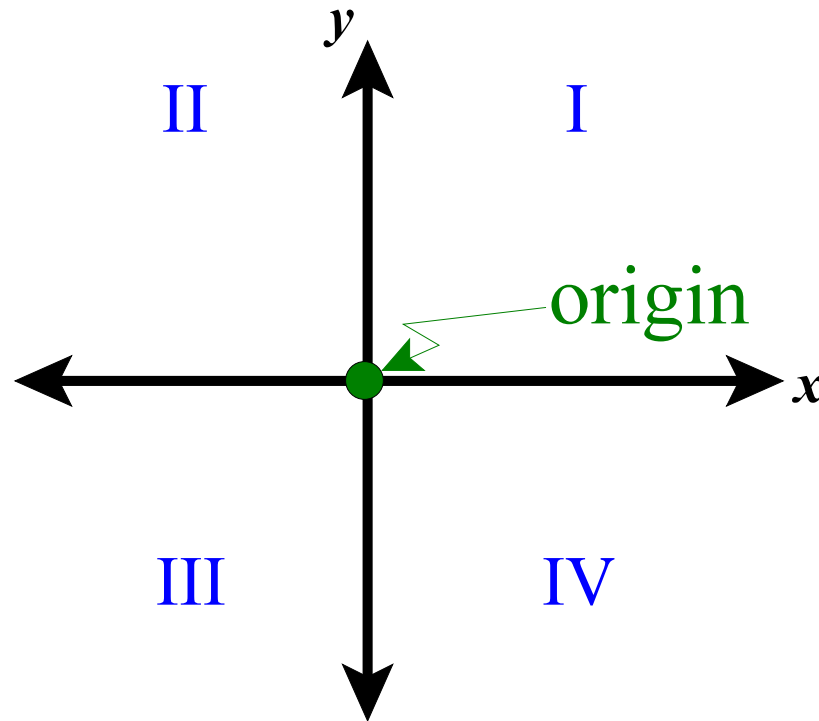
I. Rectangular Coordinate System (2-dimensional):
 x -axis: horizontal number line
 y -axis: vertical number line



$P_1(x_1, y_1) \Leftrightarrow$ coordinates of point P_1 are (x_1, y_1)

II. Examples (p.188): #2-28(even)

III. The Origin & 4 Quadrants...



coordinates for the “origin” are (____, ____)

IV. Scatter diagram v. line graph (p.184):

1. see Figure 2 & Figure 3
2. Example (p.190): #48

V. Miscellaneous (p.192): #54

HW: pp.188-193 / #1-29(every other odd),45,49,51,
53,57

Read pp.195-203 (section 3.2)