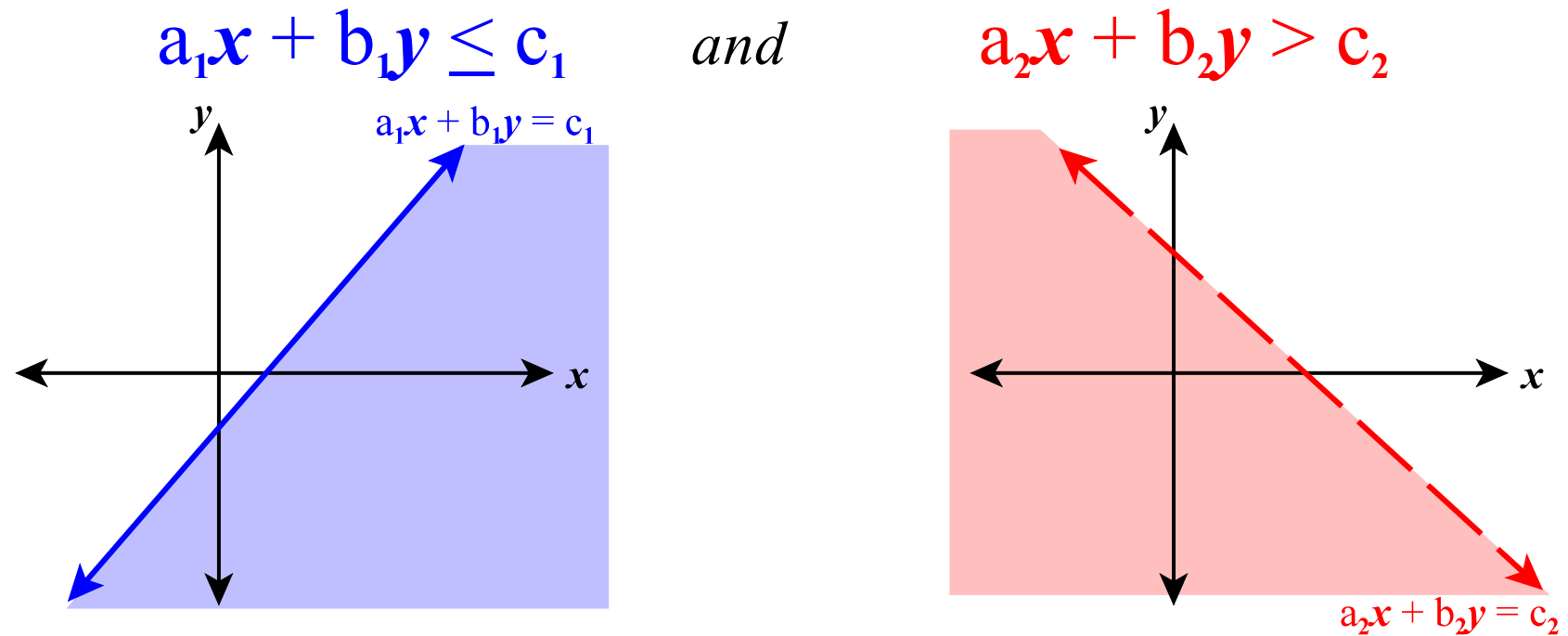


## IV. System of Inequalities:



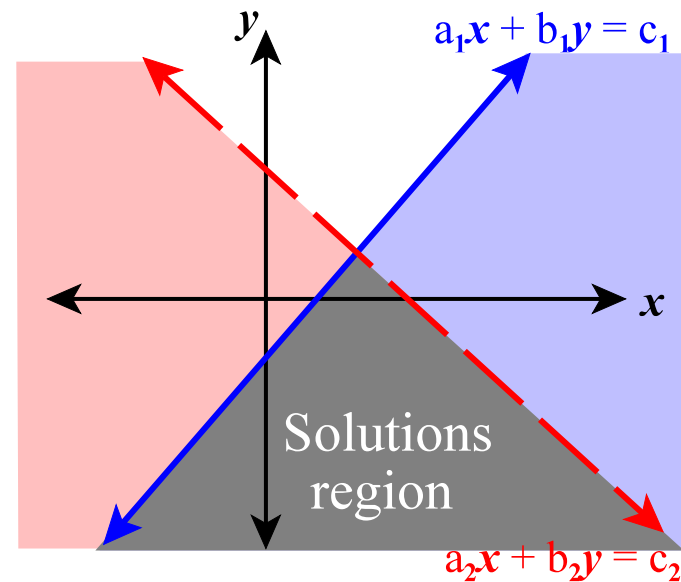
The solution region to the system is the intersection (overlapping region) between the two individual solutions...

IV. continued —

$$a_1x + b_1y \leq c_1$$

and

$$a_2x + b_2y > c_2$$



V. Examples (p.283): Exercises #24,34

HW: p.283 / Exercises #23-43 (every other odd)

I. Polynomial (p.305): algebraic expression where every term is of the form,  $\mathbf{ax}^n$ ...

e.g., 
$$P(\mathbf{x}) = -\mathbf{x}^2 + \frac{1}{2} \mathbf{x} - 0.3$$

has three terms \_\_\_\_\_, \_\_\_\_\_ & \_\_\_\_\_  
and  $P(\mathbf{x})$  is of *degree* = \_\_\_\_\_

II. Polynomial functions have graphs which are “continuous” and “smooth.” See p.308

III. Examples (p.313): Exercises #22,24

IV. Leading Coefficient Test (p.309): OMIT  
also skip p.313 / Exercises #25-28

## V. Addition & Subtraction:

A.  $(f \pm g)(\mathbf{x}) = f(\mathbf{x}) \pm g(\mathbf{x})$

B. Examples (pp.313-314): Exercises #32,44

HW: pp.313-314 / Exercises #3,5,11-23(odd),29,31,  
39-45(odd),59,61,65,67

OMIT section 4.5 (pp.286-293)

## I. Multiplication:

1.  $(f \cdot g)(\mathbf{x}) = f(\mathbf{x}) \cdot g(\mathbf{x})$
2. Examples (p.327): Exercises #4,10,24,26

## II. The FOIL method:

1.  $(a + b)(c + d) = ac + ad + bc + bd$   
*i.e.*,  $\underset{\text{irst}}{\mathbf{F}} + \underset{\text{uter}}{\mathbf{O}} + \underset{\text{inner}}{\mathbf{I}} + \underset{\text{ast}}{\mathbf{L}}$
2. Examples (pp.327-328): Exercises #36,56,96

HW: pp.327-328 / Exercises #1,5,9,11,13,23-55  
 (every other odd),57,59,69-77(odd),95,97