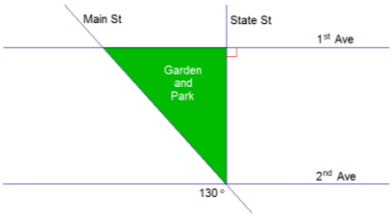
3-2: Angles Formed by Parallel Lines and Transversals
"I WILL …
…prove and use theorems about the angles formed."
I. Definitions

A. _____ describes a fundamental relationship between the basic terms of geometry: Accepted to be true without proof

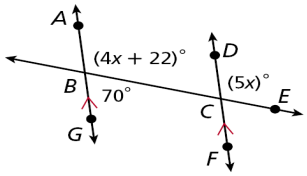
B. _____: A statement or conjecture that can be proven true by undefined terms, definitions and postulates.

Type of Theorem/Postulate	Definition	Visual Example
A)	If two parallel lines are cut by a transversal, then pairs of corresponding angles are congruent.	
B)	If two parallel lines are cut by a transversal, then pairs of alternate interior angles are congruent.	
C)	If two parallel lines are cut by a transversal, then pairs of alternate exterior angles are congruent.	
D)	If two parallel lines are cut by a transversal, then pairs of consecutive interior angles are supplementary.	

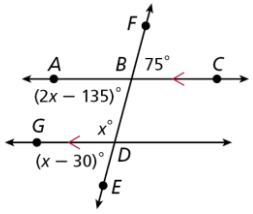
Ex 1: On the map below, 1st and 2nd Ave. are parallel. A city planner on the triangular island is formed by the intersections of the four streets below. What are the measures of the angles of the garden and park?



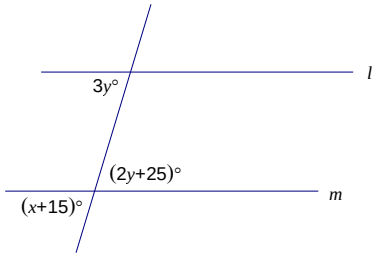
Ex 2: Using the diagram below, solve for $m\angle ECF$ and $m\angle DCE$



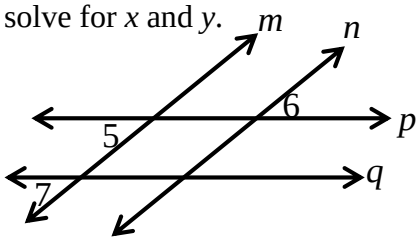
Ex 3: Using the diagram below, solve for $m\angle EDG$ and $m\angle BDG$



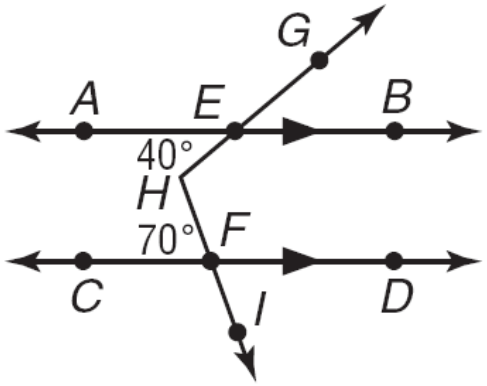
Ex 4: Using the diagram below, solve for $m\angle EDG$ and $m\angle BDG$



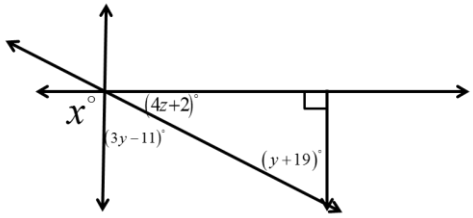
Your Turn: Using the diagram below, if $m\angle 5=2x-10$, $m\angle 6=4(y-25)$ and $m\angle 7=x+15$, solve for x and y.



Ex 5: What is the measure of $m\angle GHI$.



Your Turn: What is the measure of $m\angle GHI$.



Assignment: Page 158 7-27 odd (omit 25), 28, 31, 37