Parallel Lines Cut by a Transversal
Task Analysis
9-12

Lesson Objective: Given a diagram (parallel lines cut by a transversal) and the measurement of one angle, students will apply postulates and theorems to determine the measurement of any other angles.

Subobjective 1: Student will be able to identify the angles formed when parallel lines are cut by a transversal.

- **Input:** Let's review some vocabulary. Show words on board and match picture to words.
  - Parallel lines are two lines that will never intersect (picture)
  - A Transversal is a line that intersects two or more lines at different points (picture)
  - Vertical Angles are two angles formed from intersecting lines – the angle are "opposite" or "across" from each other. (picture)
  - Supplementary Angles are two angles that form a straight line or add up to 180 degrees (picture)
  - Alternate Interior Angles are two nonadjacent interior angles on opposite sides of a transversal (picture)
  - Same-Side Interior Angles are two interior angles on the same side of a transversal
  - Corresponding Angles are two angles in corresponding positions relative to two parallel lines (picture)

- **Model:** Using this diagram, we can find all of these types of angles. [Use diagram below and point out that 2& 6 are corresponding, 1& 4 are vertical, 4&5 are alternate interior, 3&5 are same side interior, 1&2 are supplementary.]

- **Activity:** A diagram will be on the board, with all angles labeled like so: