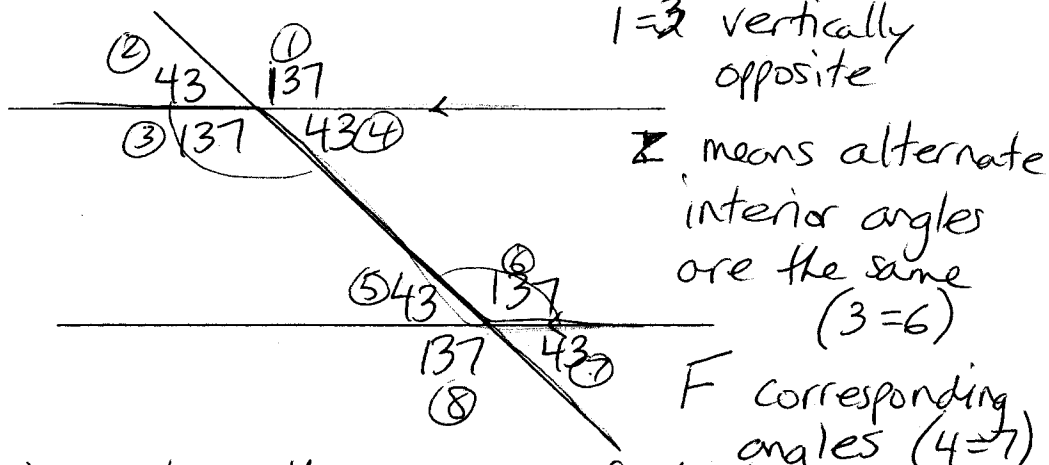


When given two parallel lines there are several relationships that occur. Using the diagram below determine all angles and determine relationships between the equal angles.



C interior angles on the same side of the transversal are supplementary. A transversal is a line drawn that goes through two parallel lines. $(4+6=180^\circ)$

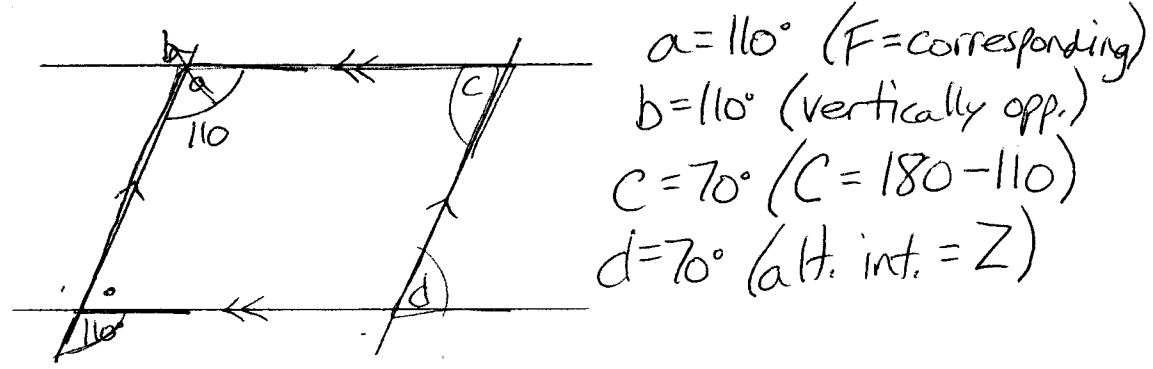
Alternate interior angles are two non-adjacent interior angles or opposite sides of a transversal. For example, $3=6$ (Z) OR $4=5$

Supplementary angles are angles that add to 180° . For example, $4+6, 1+2$

Complimentary angles are angles that add to 90° . For example, _____

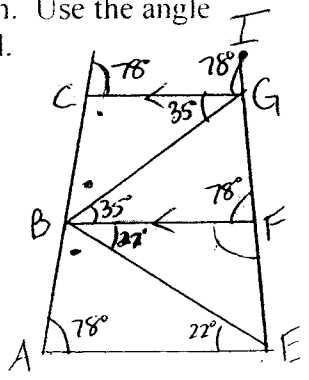
Vertically opposite angles are angles that are directly across from each other. For example, $1=3$

Example 1: Determine the measures of a, b, c, and d.



Example 2: One side of a cell phone tower will be built as shown. Use the angle measures to prove that braces CG, BF, and AE are parallel.

CG and BF are // because angles BFG and CGI are =.
For the same reason, CG and AE are //.



omit 8a, 10, 12, 18