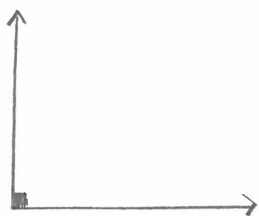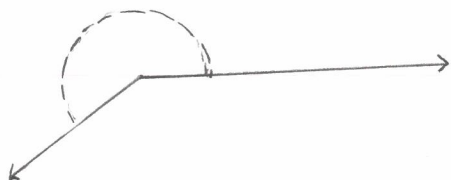Acute Angle: any angle < 90°

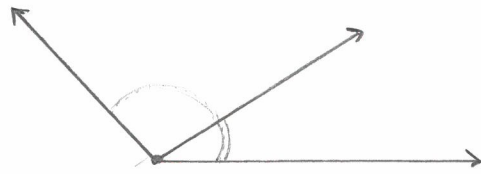Obtuse Angle: any angle > 90° but < 180°

Right Angle: any angle = 90°
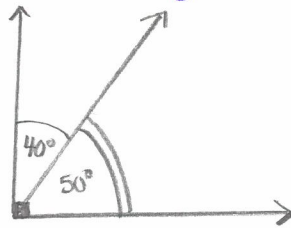
Straight Angle: any angle 180°

Reflex Angle: any angle > 180° but < 360°

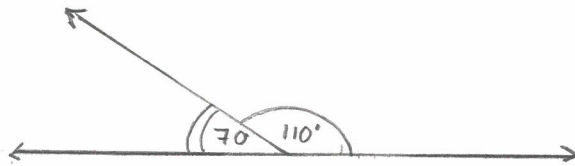**Adjacent Angles:** 2 angles that share a common vertex and a common arm.

Complementary Angles: <u>two</u> angles that add upto $90°$

$40°$
$50°$

Supplementary Angles: <u>two</u> angles that add up to $180°$

70 $110°$

Congruent Angles: two angles have the same measurement (equal)
$(\cong)$

$60°$ $60°$

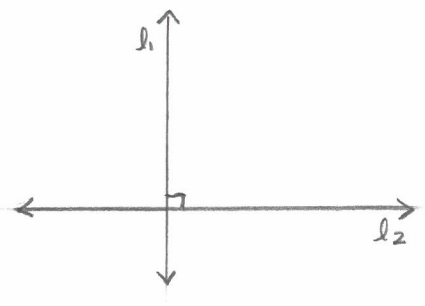**Opposite Angles:** angles formed by an intersection of lines

x • y • x
              y
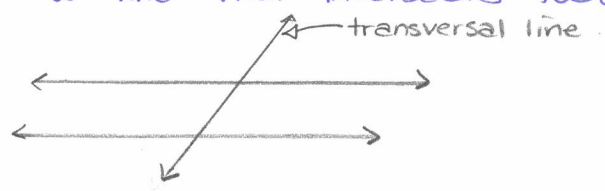
Parallel Lines (//) two lines that will never touch - always equidistant apart at all times.
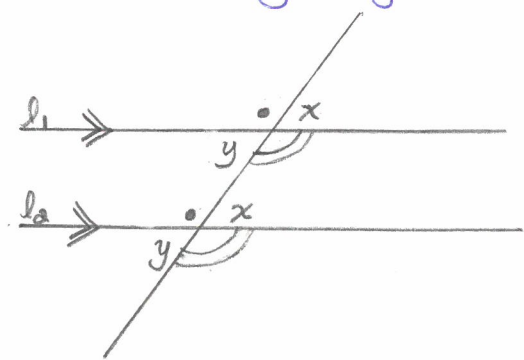
Perpendicular Lines (⊥) two lines that intersect at 90°
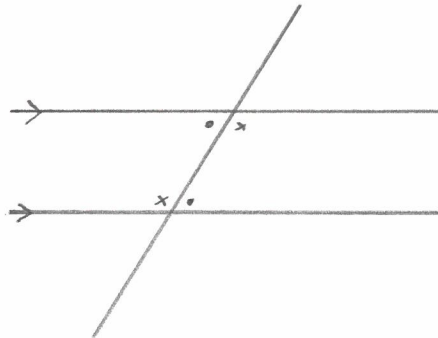
Transversal Line: a line that intersects two lines.
—transversal line.

Corresponding Angles: when a transversal line crosses two lines creating congruent angles when l_1 & l_2 are (//)
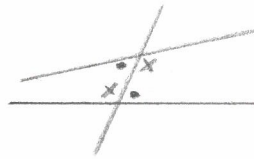
l_1 // l_2

Alternate Interior Angles: on opposite sides of a transversal line and on the inside of the lines it intersects
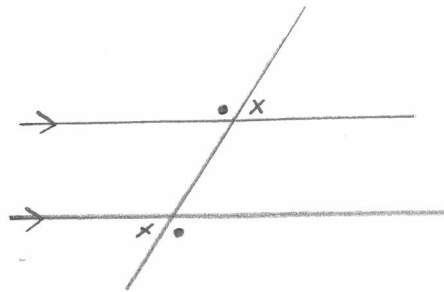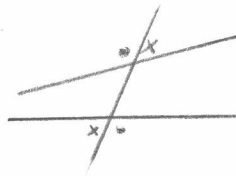
Example 2

Note: the alternate interior angles would not be the same because l_1 & l_2 are NOT parallel

Alternate Exterior Angles: are on opposite sides of the transversal line and on the outside of the two lines it intersects.
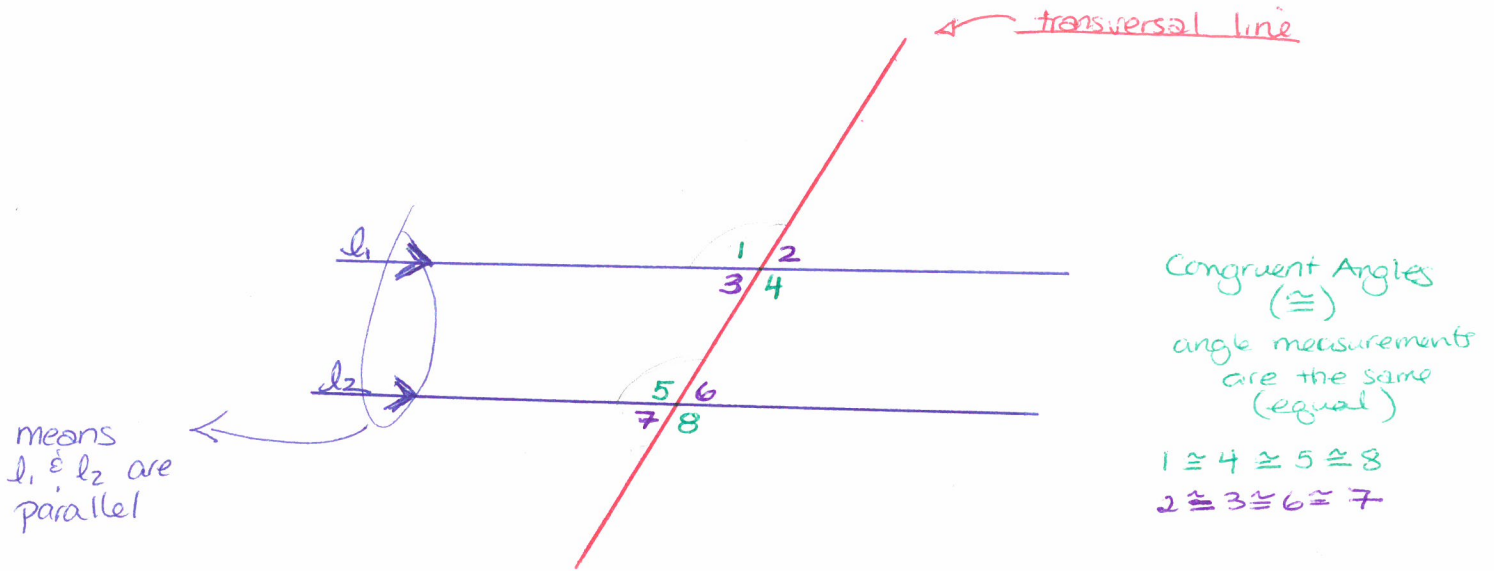
Example 2

Note: the alternate exterior angles will not be congruent because l_1 & l_2 are not parallel (//)

Review:

transversal line

l_1

1 2
3 4

5 6
7 8

means
l_1 & l_2 are
parallel

Congruent Angles
($\cong$)

angle measurements
are the same
(equal)

$1 \cong 4 \cong 5 \cong 8$
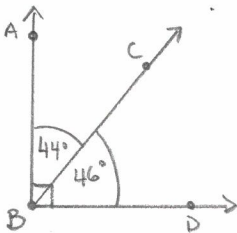$2 \cong 3 \cong 6 \cong 7$

Opposite Angles: $(1,4), (2,3) (5,8) (6,7)$

Alternate Exterior Angles $(1,8)(2,7)$

Alternate Interior Angles: $(3,6)(4,5)$

Corresponding Angles $(1,5)(2,6)(3,7)(4,8)$

How to name an angle.

You have 3 Angles
① $m \angle ABC = 44°$
② $m \angle CBD = 46°$
③ $m \angle ABD = 90°$
└ the "m" means the measurement of the angle.

○ B is the Vertex of $\angle ABC$ and $\angle CBD$
○ Because $\angle ABC$ and $\angle CBD$ share a Vertex
and the arm $\overline{BC}$ the are adjacent angles
○ $\angle ABC$ and $\angle BCD$ are complementary angles
because $m \angle ABC + m \angle BCD = 90°$