

Geometry 1

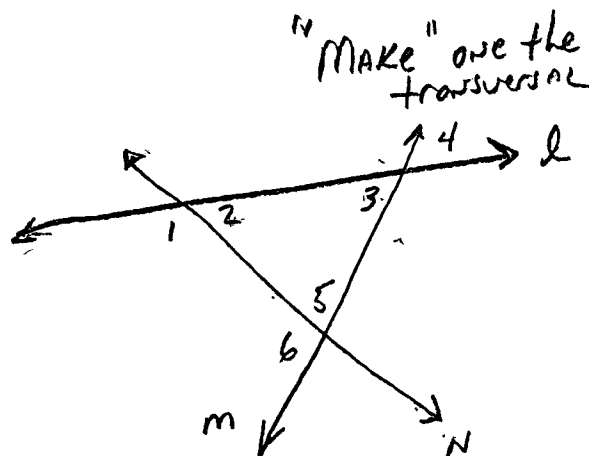
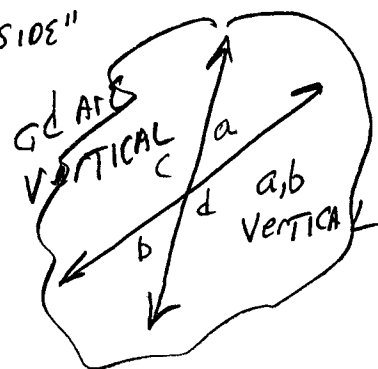
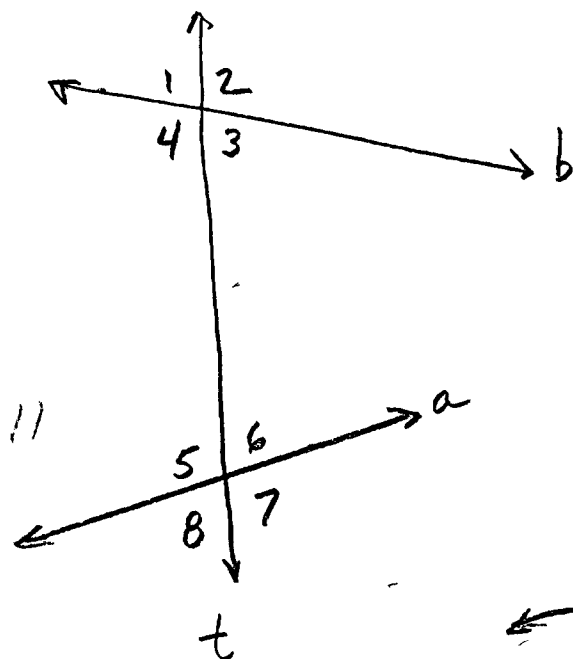
TUESDAY 9-4-12

* Ch. 3-1 Lines and Angles

Vocabulary: transversal, corresponding angles, alternate interior $\angle$'s, alternate exterior $\angle$'s, consecutive interior & exterior

EX 2 & EX 3 Pg 147.

AK.A.
"SAME SIDE"



SKW LINES

LINES THAT ARE NOT COPLANAR AND DO NOT INTERSECT

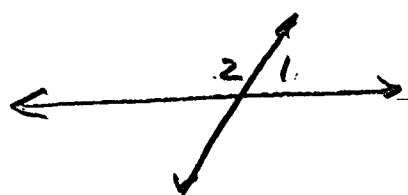
TRANSVERSAL

A line that intersects
2 coplanar lines at 2
different points

- Forms 8 Angles
- If the 2 coplanar lines
are parallel, then "if you know
1 $\angle$ you know
ALL 8!"

Supplemental
Angles

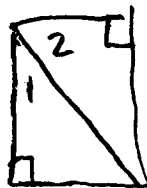
2 Angles that
sum to
 180°



$$m\angle 1 + m\angle 2 = 180^\circ$$

Complementary
Angles

2 Angles that
sum to
 90°

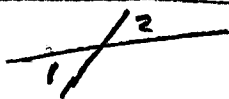


$$m\angle 1 + m\angle 2 = 90^\circ$$

Vertical Angles

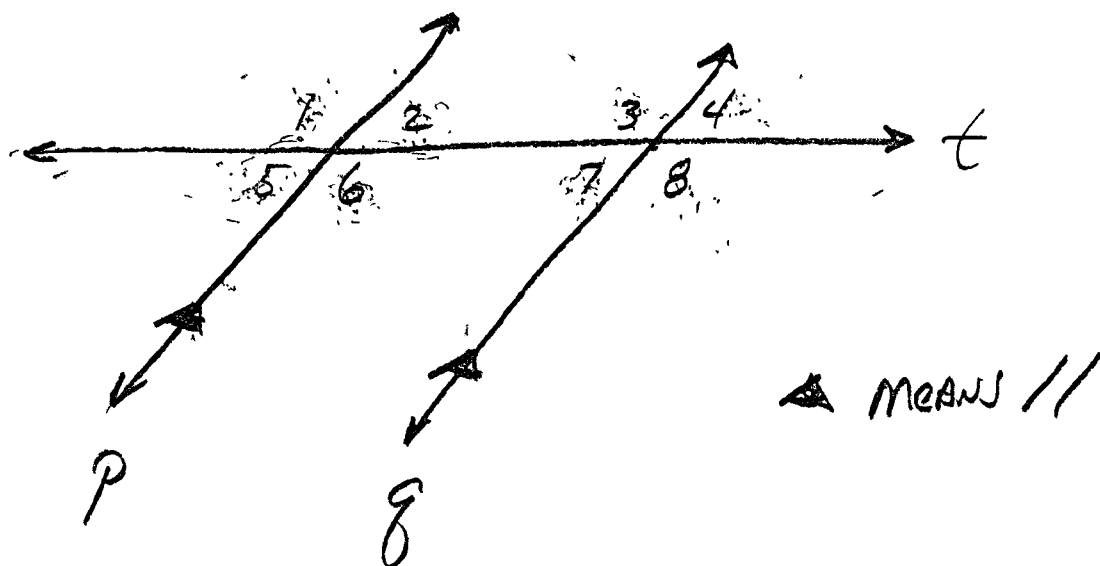
THE NON-ADJACENT
Angles formed by 2
intersecting lines

(EX)



$$m\angle 1 \cong m\angle 2 \quad \text{or?}$$

* Ch. 3-2 Angles Formed By Parallel Lines and Transversals



Corresponding $\angle$'s are? CONGRUENT
(same, same
measure shape)

Alternate interior $\angle$'s are? congruent

Alternate exterior $\angle$'s are? congruent

Consecutive interior $\angle$'s are? supplementary

Consecutive exterior $\angle$'s are? supplementary

Solving Problems $\Rightarrow$ Look for a relationship.

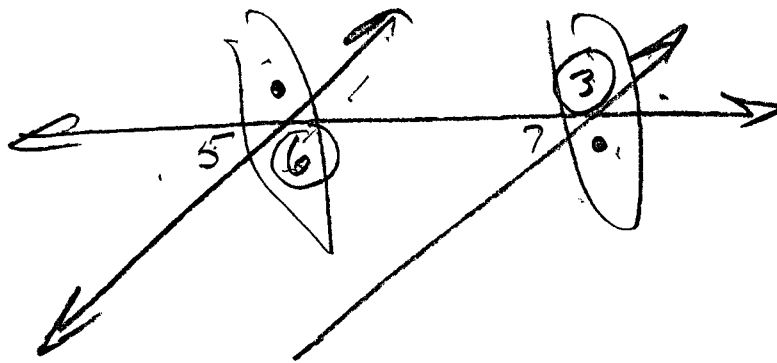
- Write an equation
- Solve it

$$\begin{array}{r} \textcircled{29} \quad 10x = 11x - 5 \\ -10x \quad -10x \end{array}$$

$$\begin{array}{r} 0 = x - 5 \\ +5 \quad +5 \end{array}$$

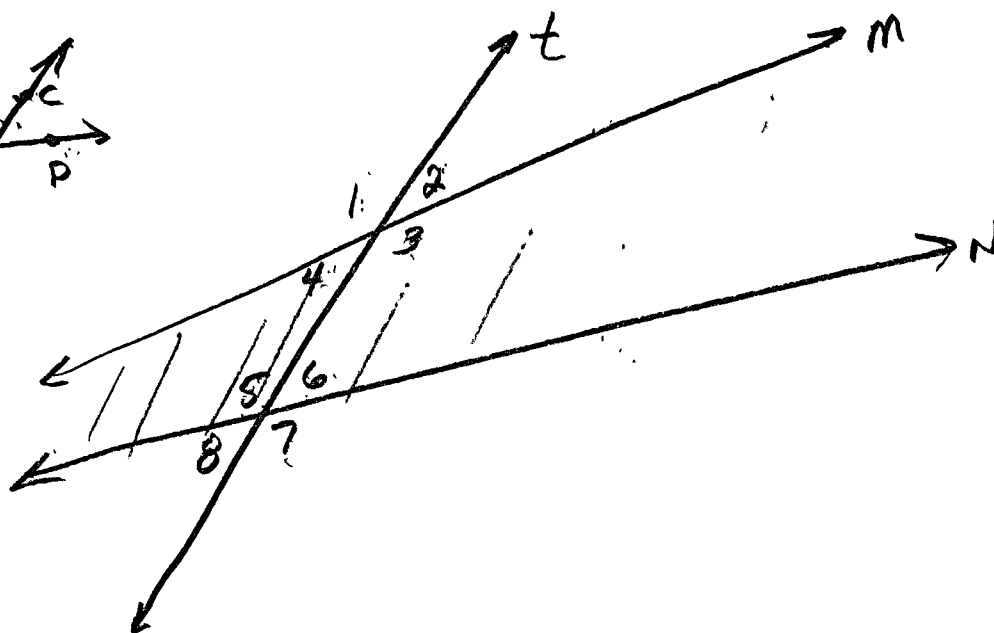
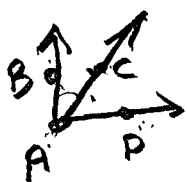
$$5 = x$$

$$\therefore 10x = \boxed{50^\circ}$$



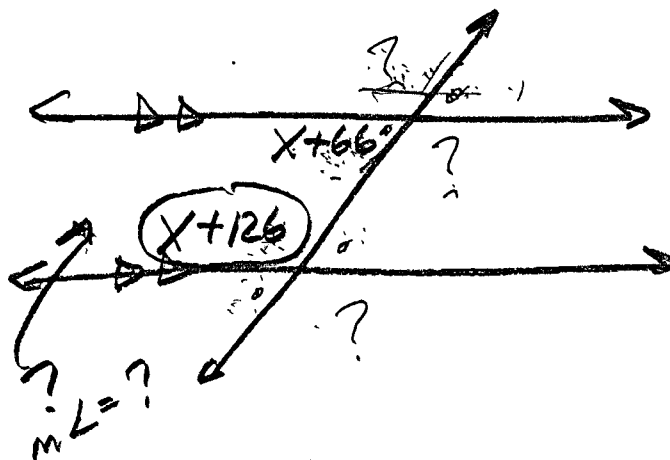
Geometry

TUES. 9-4-12



$\cong$
Congruent

(31)



$$(X + 126) + (X + 66) = 180$$

$$2X + 192 = 180$$

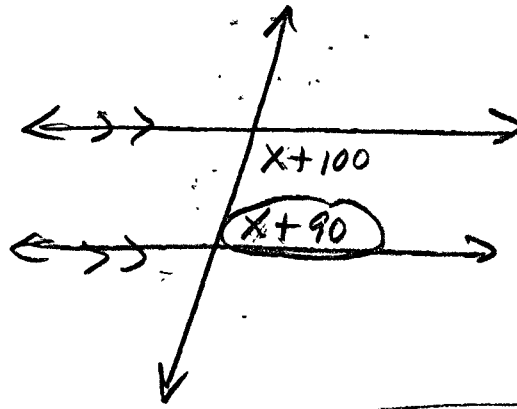
$$-192 \quad -192$$

$$2X = -12$$

$$X = -6$$

$$\therefore (-6) + 126 = 120^\circ$$

(33)



$$(x+100) + (x+90) = 180$$

$$\underline{x+100} + \underline{x+90} = 180$$

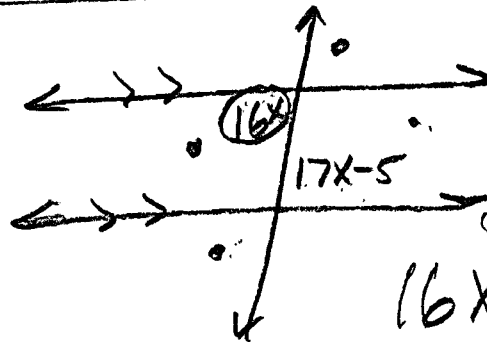
$$\begin{array}{r} \downarrow \\ 2x + 190 = 180 \\ -190 \quad -190 \end{array}$$

$$\frac{2x}{2} = \frac{-10}{2}$$

$$x = -5$$

$$\therefore \angle = 85^\circ$$

(35)



$$\begin{array}{r} 16x = 17x - 5 \\ -16x \quad -16x \end{array}$$

$$0 = 1x - 5$$

$$\begin{array}{r} +5 \quad +5 \end{array}$$

$$5 = x \quad \therefore \angle = 80^\circ$$

$$\cancel{X} + 100 = \cancel{X} + 90$$

$$\cancel{100} = \cancel{90}$$