Warm Up

Identify the types of angles.

1. $\angle 5$ and $\angle 7$

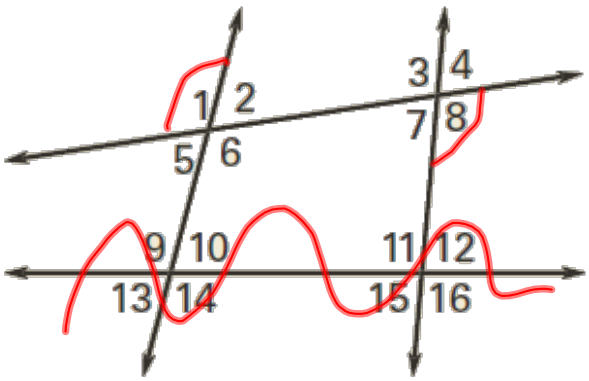
corresponding

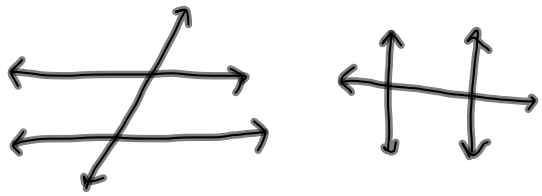
2. $\angle 3$ and $\angle 6$

alt. interior

3. $\angle 1$ and $\angle 8$

alt. exterior





3-2 Parallel Lines and Transversals

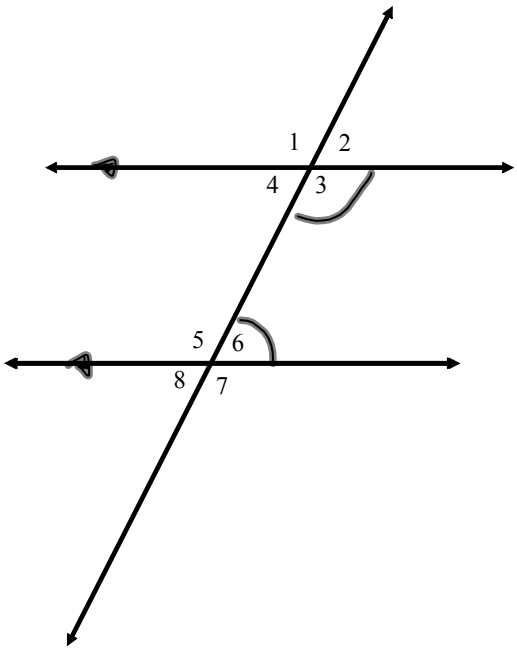
Look up postulate #15 and theorems 3.1 - 3.3

conv. ∠'s Post.

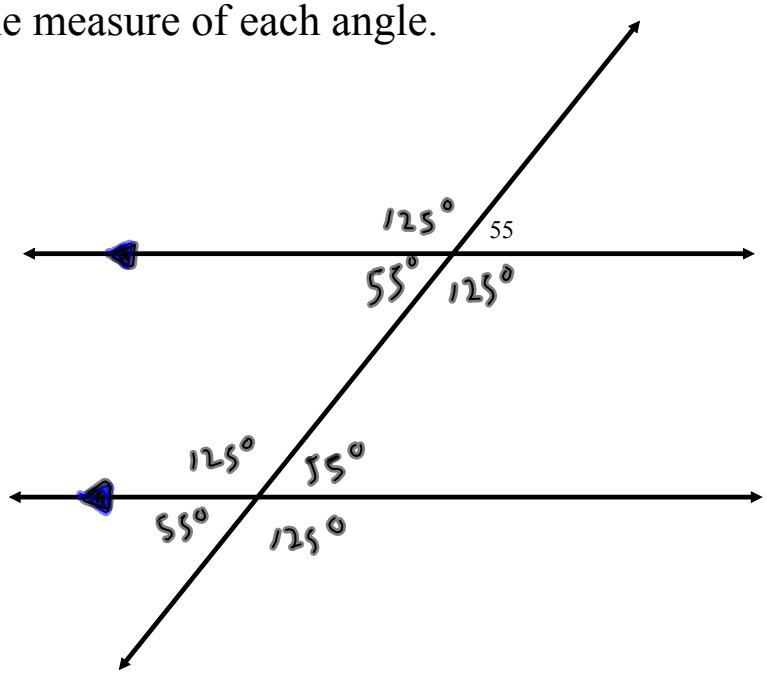
Alt. int. ∠'s Thm.

Alt. ext. ∠'s Thm.

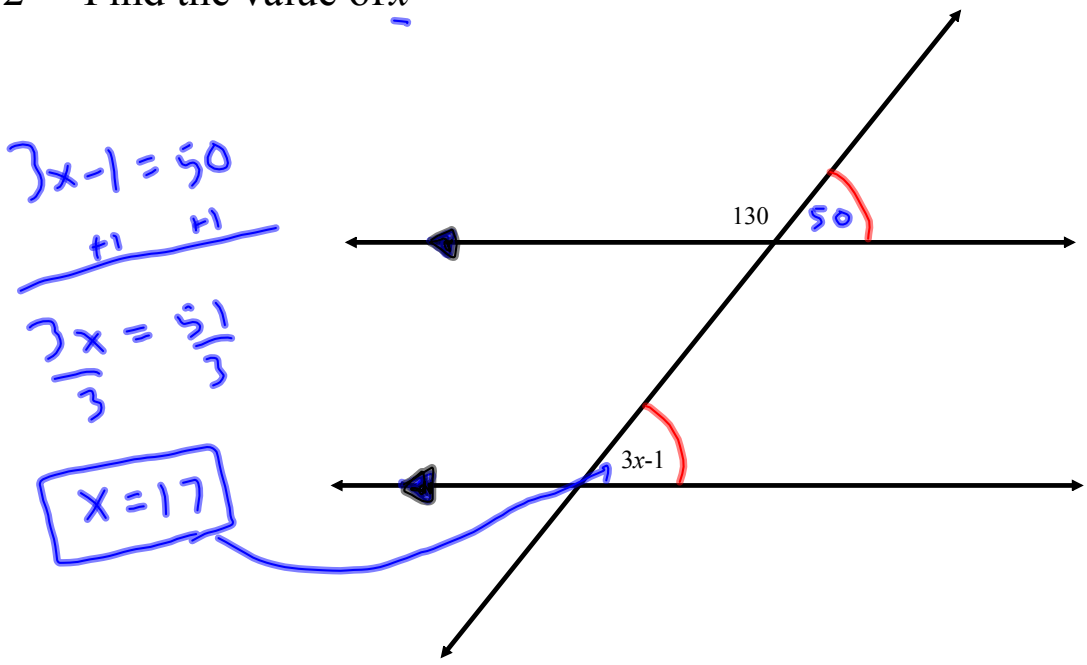
Cons. int. ∠'s Thm.
– supplementary



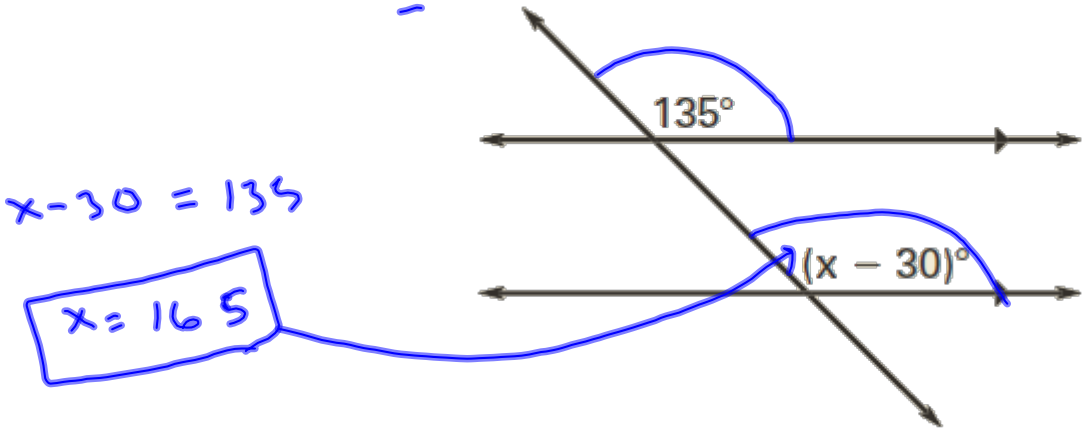
Ex 1 Find the measure of each angle.



Ex 2 Find the value of x



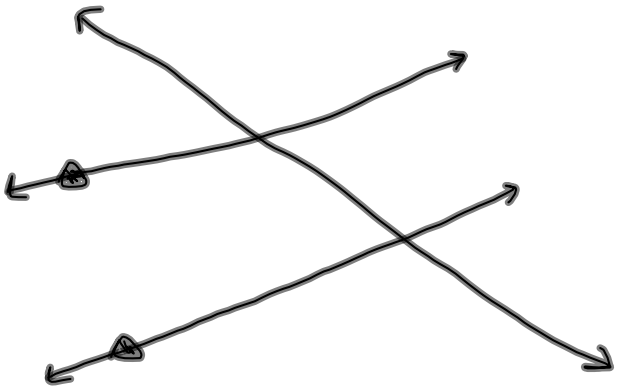
Ex. 3 Find the value of x.



$x - 30 = 135$

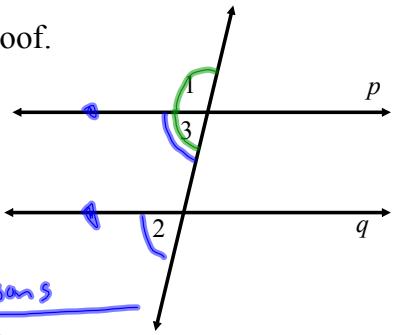
$x = 165$

Ex. 4 Make up a problem similar to examples 2 and 3. Trade your problem with a student around you, and solve each other's problem.



Ex. 5 Write a two column proof.

Given: p is parallel to q
Prove: angles 1 and 2 are supplementary



Statements	Reasons
$p \parallel q$	given
$\angle 2 \cong \angle 3$	Corr. $\angle$'s post.
$m\angle 2 = m\angle 3$	def. of $\cong$
$m\angle 1 + m\angle 3 = 180^\circ$	linear post. post.
$m\angle 1 + m\angle 2 = 180^\circ$	substitution
$\angle 1$ & $\angle 2$ are supplementary	Def. of supp.