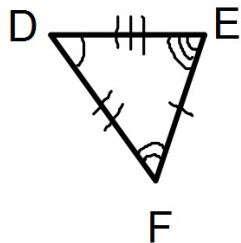
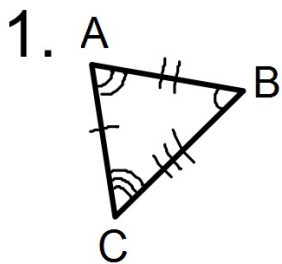
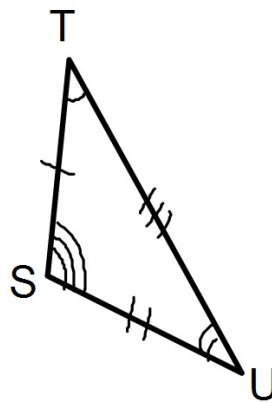
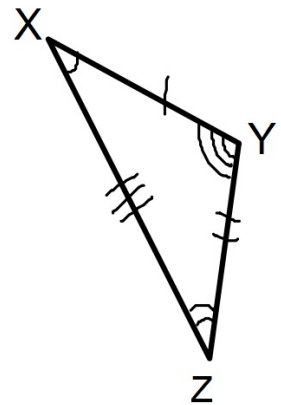


Bellwork

Write a Congruence Statement for each of the following:



2.



Parallel Lines

Definitions:

Parallel Lines - 2 lines that don't intersect and are coplanar.

Transversal - A line that intersects two or more coplanar lines at different points.

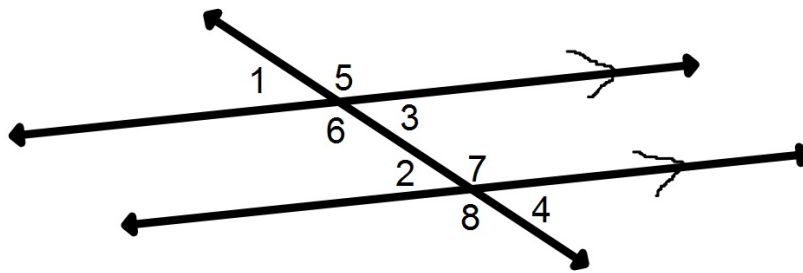
Denoted by...

1. $a \parallel b$ means "a is parallel to b"
2. Arrows in the middle of two or more lines implies that the lines are parallel.

Angles Formed by Lines Cut by a Transversal

1. Corresponding Angles:
2 angles with corresponding positions.
2. Alternate Interior Angles:
2 angles inside the 2 lines but on opposite sides of the transversal.
3. Alternate Exterior Angles:
2 angles outside the 2 lines and on opposite sides of the transversal.
4. Same Side Interior Angles:
2 angles inside the 2 lines and on the same side.
5. Vertical Angles:
Opposite angles of 2 intersecting lines.

Identifying The Types of Angles



1. List the pairs of Corresponding Angles.
2. List the pairs of Alternate Interior Angles.
3. List the pairs of Alternate Exterior Angles.
4. List the Same Side Interior Angles.
5. List the pairs of Vertical Angles.

Theorems To Remember

If 2 parallel lines are cut by a transversal...

1. Corresponding Angles Postulate:

Then pairs of corresponding angles are congruent.

2. Alternate Interior Angles Theorem:

Then pairs of alternate interior angles are congruent.

3. Alternate Exterior Angles Theorem:

Then pairs of alternate exterior angles are congruent.

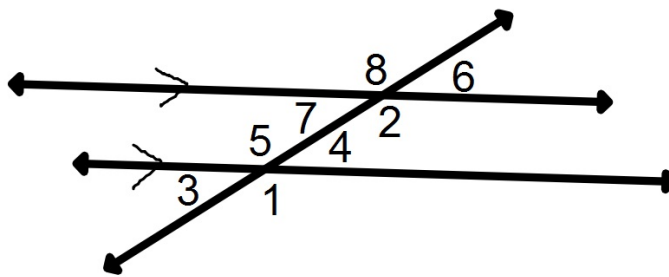
4. Same-Side Interior Angles Theorem:

Then same-side interior angles are supplementary.

5. Vertical Angles Congruence Theorem:

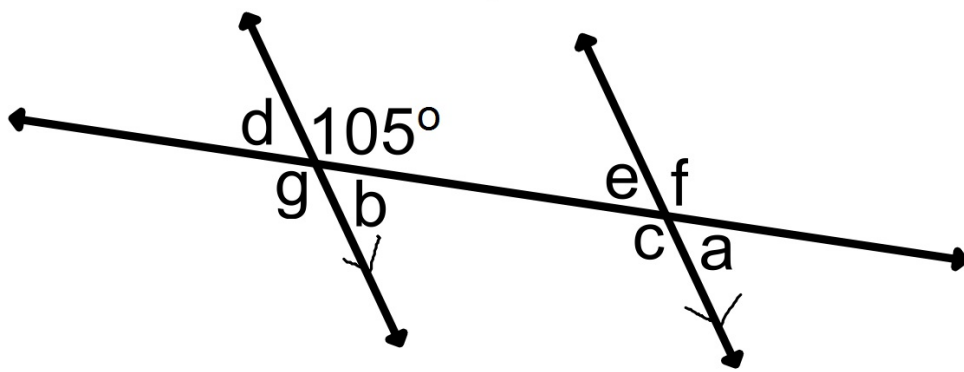
Vertical angles are congruent.

Example



1. Identify each of the following:
 - A. All Corresponding Angles.
 - B. All Alternate Interior Angles.
 - C. All Alternate Exterior Angles.
 - D. All Same-Side Interior Angles.
 - E. All Vertical Angles.
2. What angles are congruent to angle 1?

Example

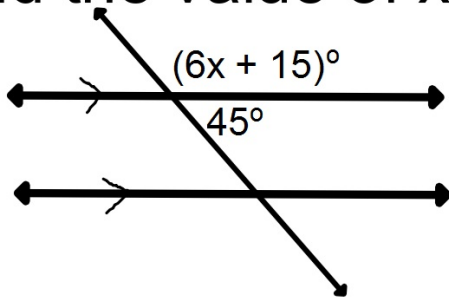


2. Find the measure of all missing angles.

Example

Find the value of x:

3.



4.

