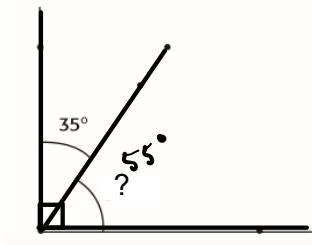


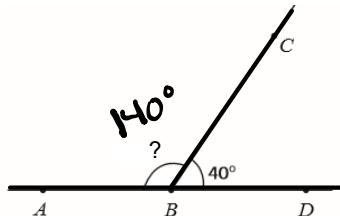
ANGLES & PARALLEL LINES

Complementary Angles: Two angles that add up to 90°

$$90^\circ - 35^\circ = 55^\circ$$



Supplementary Angles: Two angles that add up to 180°

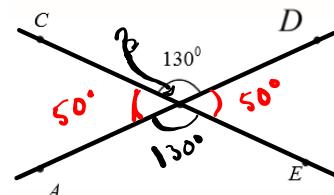


$$180^\circ - 40^\circ = 140^\circ$$

Vertically Opposite Angles:

When two lines intersect, four angles are created.

The angles directly across each other will have the same angle measure.

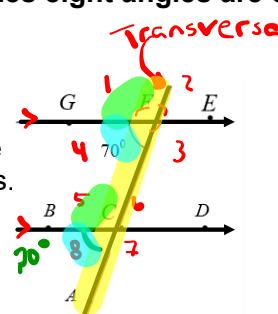


When a transversal line passes through 2 parallel lines eight angles are created.

Corresponding Angles:

Corresponding angles will always be on the same side of the transversal and on either side of the parallel lines.

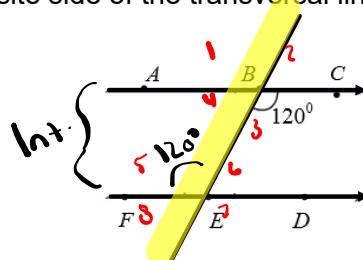
$$\angle 1 = \angle 5 \quad \angle 4 = \angle 8 \quad \angle 2 = \angle 6 \quad \angle 3 = \angle 7$$



Alternate Interior Angles:

These angles are always found on opposite side of the transversal line, and INSIDE the two parallel lines.

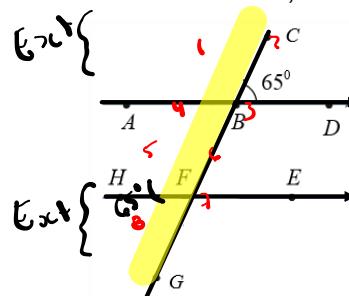
$$\angle 3 = \angle 5 \quad \angle 4 = \angle 6$$



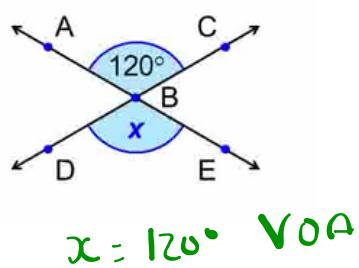
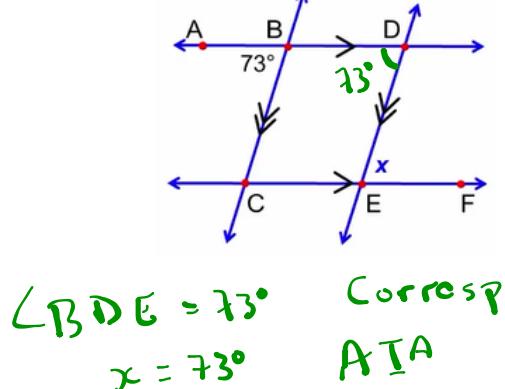
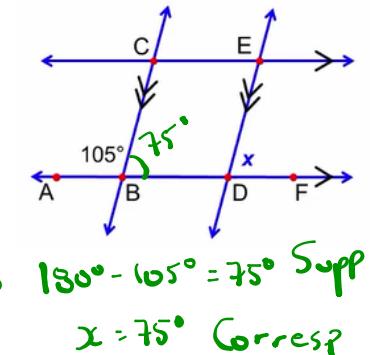
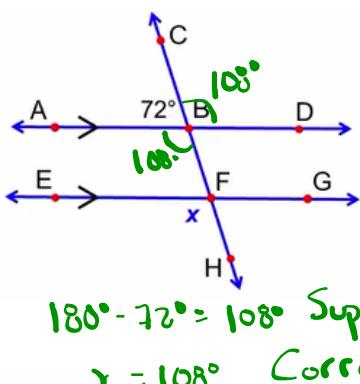
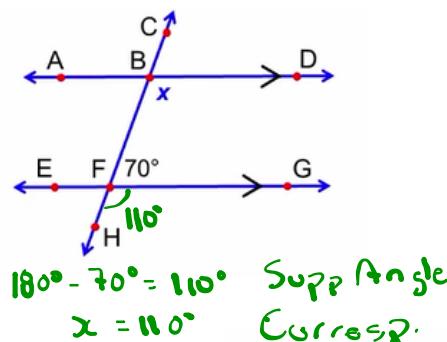
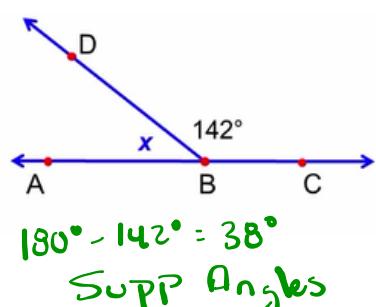
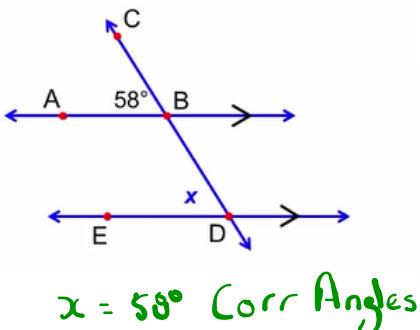
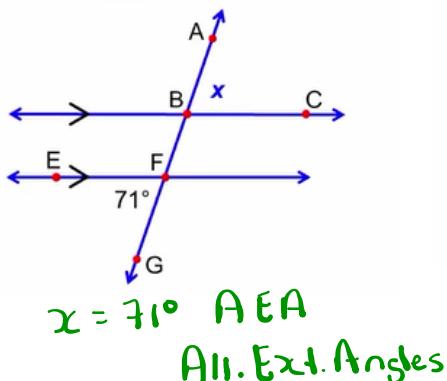
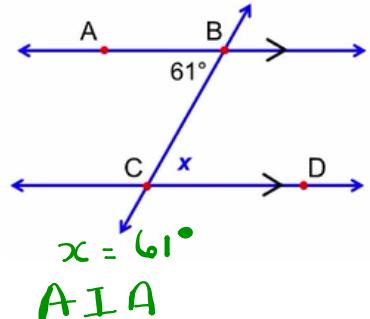
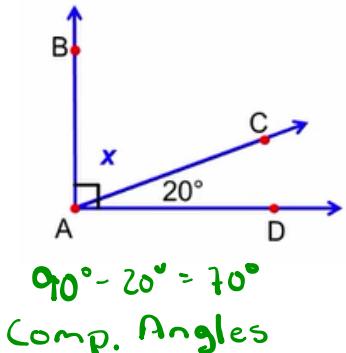
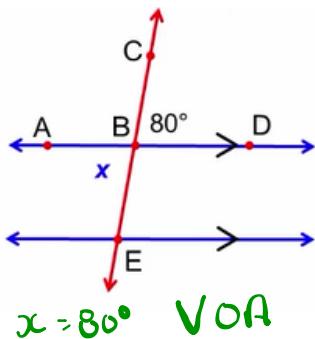
Alternate Exterior Angles:

These angles are always found opposite side of the transversal line, and OUTSIDE the parallel lines.

$$\angle 1 = \angle 7 \quad \angle 2 = \angle 8$$

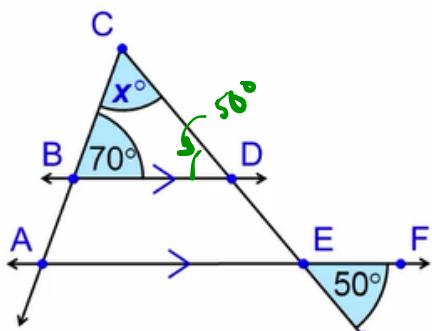


Find the missing measure "x" for each diagram below and state the definition (type of angle) used to find it



The sum of interior angles of a triangle = 180°

Find the value of x for each of the diagrams below.



$$\angle BDC = 50^\circ \text{ (given)} \\ 180^\circ - (70^\circ + 50^\circ) = 60^\circ \quad \sum \angle \Delta = 180^\circ$$

