

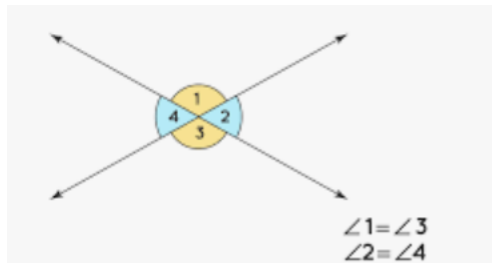
## Chapter 5 Formula Sheet

Complementary angles add up to  $90^\circ$

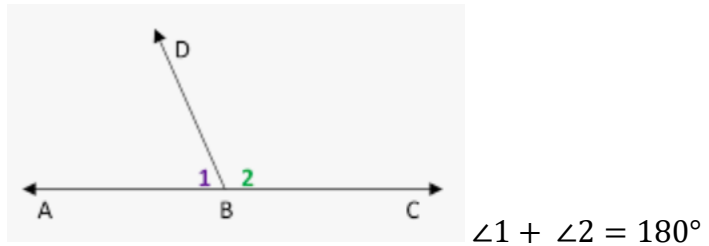
Supplementary angles add up to  $180^\circ$

Bisecting an angle cuts it into two equal smaller angles.

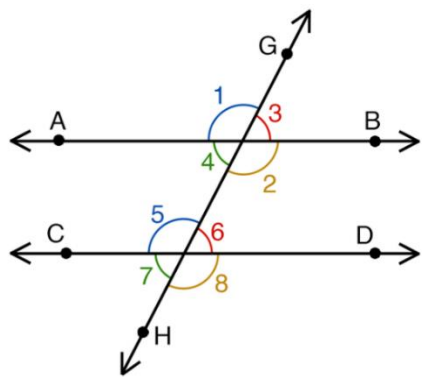
Vertically opposite angles are equal:



Linear pairs of angles are supplementary:



When parallel lines are intersected by a transversal, corresponding angles are equal, interior angles on the same side of the transversal are supplementary, alternate interior angles are equal and alternate exterior angles are equal.



Corresponding

$$\angle 1 = \angle 5$$

$$\angle 2 = \angle 8$$

$$\angle 3 = \angle 6$$

$$\angle 4 = \angle 7$$

Alternate interior

$$\angle 4 = \angle 6$$

$$\angle 2 = \angle 5$$

Alternate exterior

$$\angle 1 = \angle 8$$

$$\angle 3 = \angle 7$$

Interior angles on the same side of the transversal

$$\angle 4 + \angle 5 = 180^\circ$$

$$\angle 2 + \angle 6 = 180^\circ$$