

## Chapter 5: Properties of Triangles

### 5.1 Parts of Triangles

- 1) Perpendicular Bisector
- 2) Thm 5.1: Perpendicular Bisector Thm
- 3) Thm 5.2: Perpendicular Bisector Converse
- 4) Thm 5.3: Angle Bisector Thm
- 5) Thm 5.4: Angle Bisector Conv.
- 6) distance between a point and line

### 5.2 Special Segments in a Triangle

- 1) Perpendicular Bisector of a Triangle
- 2) Angle Bisector of a Triangle
- 3) Median
- 4) Altitude
- 5) Concurrent
- 6) circumcenter
- 7) incenter
- 8) centroid
- 9) orthocenter
- 10) Thm 5.5: Concurrency Properties

### 5.3 Midsegment Theorem

- 1) midsegment
- 2) Thm 5.6: Midsegment Theorem

### 5.4 Inequalities in One Triangle

- 1) Thm 5.7
- 2) Thm 5.8
- 3) Thm 5.9: Triangle Inequality Thm

### 5.5 Inequalities in Two Triangles

- 1) Thm 5.10: Hinge Thm
- 2) Thm 5.11: Converse of Hinge Thm