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| **5.1 Perpendicular and Angle Bisectors**  **equidistant -**the same distance from two or more objects  **locus -**a set of points that satisfies a given condition |

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| **5.2 Bisectors of Triangles**  **concurrent -**a point where three or more lines intersect at one point  **point of concurrency -**point where three or more lines coincide  **circumcenter of a triangle -**the point of concurrency of the three perpendicular bisectors of a triangle    **circumscribed circle -**every vertex of the polygon lies on the circle    **incenter of a triangle -**the point of concurrency of the three angle bisectors of a triangle    **inscribed circle -**a circle in which every side of the polygon is tangent to the circle    **5.3 Medians and Altitudes of Triangles**  **median of a triangle -**a segment whose endpoints are a vertex of a triangle and the midpoint of the opposite side  **centroid of the triangle -**the point of concurrency of the three medians of a triangle    **altitude of a triangle -**a perpendicular segment from a vertex to the line containing the opposite side  **orthocenter of a triangle** -the point of concurrency of the three altitudes of a triangle |

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| **5.4 Triangle Midsegment Theorem**  **midsegment of a triangle -**a segment that joins the midpoints of two sides of the triangle. Every triangle has three midsegments. |

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| **5.5 Indirect Proofs and Inequalities in One Triangle**  **indirect proof -**a proof in which the statement to be proved is assumed to be false and a contradiction is shown |

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| **5.6 Inequalities in Two Triangles** |

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| **5.7 Pythagorean Theorem**  **Pythagorean triple -**a set of three nonzero whole numbers a, b, and c such that a²+b²=c² |

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| **5.8 Applying Special Right Triangles** |

**45°-45°-90° Triangle Theorem**

In a 45°-45°-90° triangle, both legs are congruent and the length of the hypotenuse is the length of the legs times √2

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**30°-60°-90° Triangle Theorem**

In a 30°-60°-90° triangle, the length of the hypotenuse is 2 times the length of the shorter leg, and the length of the longer leg is the length of the shorter leg times√3