Geometry Honors Mid-Year Exam
Terms and Definitions
Blue Class

1. Acute angle: Angle whose measure is greater than 0° and less than 90°.

2. Adjacent angles: Two angles that have a common side and a common vertex.

3. Alternate interior angles: A pair of angles in the interior of a figure formed by two lines and a transversal, lying on alternate sides of the transversal and having different vertices.

4. Altitude: Perpendicular segment from a vertex of a triangle to the opposite side or the line containing the opposite side.

5. Angle: A figure formed by two rays with a common endpoint.

6. Angle bisector: Ray that divides an angle into two congruent angles and bisects the angle.

7. Base Angles: Two angles not included in the legs of an isosceles triangle.

8. Bisect: To divide a segment or an angle into two congruent parts.

9. Coincide: To lie on top of the other. A line can coincide another line.

10. Collinear: Lying on the same line.

11. Complimentary: Two angle's whose sum is 90°.

12. Concave Polygon: Polygon in which at least one interior angle measures more than 180° (at least one segment connecting two vertices is outside the polygon).

13. Conclusion: A result of summary of all the work that has been completed. The part of a conditional statement that occurs after the word "then".

14. Congruent parts: Two or more parts that only have the same measure. In CPCTC, the parts of the congruent triangles are congruent.

15. Congruent triangles: Two triangles are congruent if and only if all of their corresponding parts are congruent.

16. Congruent angles: Two angles are congruent if and only if they have the same measure.

17. Consecutive sides: Sides of a polygon that share an endpoint.

18. Converse: A reversed conditional; if a conditional is $p \rightarrow q$, then the converse is $q \rightarrow p$

19. Coplanar: Within the same plane.

20. Convex polygon: A polygon that has all interior angles less than 180°.

21. Corresponding angles: In a figure formed by two lines and a transversal, a pair of angles on the same side of the transversal, one in the interior and one on the exterior of the figure, having different vertices.

22. Corresponding parts: Parts that are the same. In CPCTC, if there are two triangles congruent, then the corresponding parts are all congruent.

23. Decagon: A polygon with ten sides.

24. Definition: Always reversible.

25. Diagonal: A segment connecting any two non-consecutive vertices.

26. Equation: Expression of equality between two parts.

27. Equiangular triangle: A triangle with all angles having the same measure.

28. Equidistant: If two points are the same distance from one point, then they are equidistant from the third point (two points P and Q are the same distance from a third point X, then X is equidistant from P and Q).

29. Equilateral triangle: A triangle with three sides the same length.

30. Exterior angles: In a transversal, they are the angles at the top and bottom. In a triangle, it is adjacent to an interior angle and it's measure is greater than the measure of the remote interior angles.

31. Exterior points: Points outside of a figure.

32. Foot: The point where a line intersects a plane.

33. Heptagon: A seven sided polygon.

34. Hexagon: A six sided polygon.

35. Hypotenuse: The opposite side of the right angle in a triangle. Also the longest side in a triangle.

36. Hypothesis: The clause following the word “if” (“If angles are right angles, then they are congruent”).

37. Included angle: Angle made by two sides of a polygon.

38. Included side: Side made by two angles of a polygon.

39. Interior angle: An angle whose sides are determined by two consecutive sides of a polygon.

40. Interior points: Points inside of a shape.

41. Intersecting lines: Lines that have one and only one point in common are known as intersecting lines.

42. Intersection planes: The two planes that meet in a single line.

43. Isosceles triangle: A triangle with at least two sides that are the same length.

44. Kite: A quadrilateral with exactly two pairs of distinct congruent consecutive sides.

45. Leg of a triangle: Legs of a right triangle are the lines that form the right angle. Legs of an isosceles (non-equilateral) are the two congruent sides.

46. Line: Straight arrangement of points. It has infinite length but no thickness. You name a line by naming two points on the line.

47. Line perpendicular to a plane: A line is perpendicular to a plane if it is perpendicular to every one of the lines in the plane that pass through its foot.

48. Line segment: Consists of two points and all the points between them that lie on the line containing the two points. Just like a line except that it has a definite beginning and end.

49. Measure of a segment: Length of the line between two points.

50. Measure of an angle: The measure of a shape formed by two lines/rays diverging from a common point.

51. Median of a triangle: Line segment joining a vertex to the midpoint of the opposite side.

52. Midpoint: A point on a line segment that divides it into two equal segments.

53. Non-collinear: Non-collinear points that do not lie on the same line.

54. Non-coplanar: Non-coplanar points are lines that do not lie on the same plane.

55. Nonagon: A polygon with nine sides.

56. Obtuse: An angle that whose measure is greater than 90° and less than 180°.

57. Octagon: A polygon with eight sides.

58. Opposite rays: Two collinear rays that have a common endpoint and extend in opposite directions.

59. Parallel lines: Coplanar lines that never intersect.

60. Parallel planes: Planes that never intersect.

61. Parallelogram: A quadrilateral with two pairs of parallel opposite sides.

62. Pentagon: A plane figure with five straight sides and five angles.

63. Perpendicular bisector: A line that cuts a segment into two equal parts at a right angle.

    A line that intersects another segment to divide it into equal segments and that is perpendicular to the second line.

64. Perpendicular lines: Lines that intersect to form right angles.

65. Perpendicular planes: Planes that intersect to form right angles.

66. Plane: A surface such that if any two points are connected by a line, all points of the line are also on the surface.

67. Point: Basic unit of geometry. It has no size, only location. Points are always represented by a capital letter.

68. Polygon: Closed geometric figure in a plane, formed by connecting line segments, endpoint to endpoint with each segment intersecting exactly two others.

69. Postulate: An assumption without proof as a basis for reasoning.

70. Quadrilateral: A four sided figure.

71. Ray: A portion of a line, which starts at a point and goes off in a particular direction into infinity.

72. Rectangle: A parallelogram with at least one right angle. Also a quadrilateral with four right angles.

73. Reflexive (property): a line or an angle is always equal to itself; a=a, m<ABC = m<ABC.

74. Regular: All interior angles and sides are congruent.

75. Rhombus: A parallelogram with all four sides congruent in length.

76. Remote interior angles: The two angles not congruent to the exterior angle of a triangle.

77. Right angle: An angle whose measure is exactly 90°.

78. Right triangle: A triangle with one right angle in it.

79. Same side interior angles: When two lines are cut by a transversal, the interior angles on one side of the transversal are same side interior angles.

80. Scalene triangle: A triangle with all three sides of different lengths.

81. Skew Lines: Two lines that are not coplanar.

82. Space: Set of all possible points. Made up of infinite planes.

83. Square: A parallelogram that is both a rhombus and a rectangle. All the sides are the same length and all angles are right angles.

84. Substitution Postulate: Substituting angles and segments for each other, not numbers; if <1 is complimentary to <2 and <2 is congruent to <3 then <1 is complimentary to <3.

85. Supplementary angles: Two angles that sum to 180°.

86. Symmetric: Having similar size, shape and relative position of corresponding parts.

87. Theorem: A result that has been proved to be true using facts that were already known. Also, a mathematical statement that can be proved.

88. Transitive property: Equality is the state of being quantitatively the same. Ex: if a=b and b=c, then a=c (all equal to each other).

89. Transversal: A line that passes through two other lines, which are often parallel to each other.

90. Triangle: A polygon with three sides.

91. Undefined terms: A point because they have no size, a line because it never ends and a plane because it extends forever.

92. Unique: A line assumption that says through any three points, there is exactly one line.

93. Vertex (of an angle): The common endpoint of two rays that form an angle.

    Vertex (of a polygon): The common endpoint of two sides of a polygon.

94. Vertical angles: A pair of angles such that the rays forming the sides of one and the rays forming the sides of another are opposite rays (bow-tie angles).