



GEOMETRY

COMPETENCY EXAM

STUDY GUIDE

This assessment will be used to guarantee that the material taught outside of Piscataway Township Schools has prepared you for the next course you will be taking. Please give this assessment your best effort. Scientific calculators may be used but graphing calculators are not permitted for the exam. You will be given the PARCC HS Mathematics reference sheet at the time of exam.

The test is set up in two sections: short answer and graphing. Please use the following list of topics to review for the exam.

- General Vocabulary:
 - Supplementary, Complementary, Acute, Obtuse, Straight Angle, Alternate Interior Angles, Alternate Exterior Angles, Complementary Angles, Consecutive Interior Angles, Corresponding Angles, Radius, Diameter, Circumference, Sector, Arc Length, Collinear, Transversal, Arcs, Translation, Rotation, Reflection, Parallel, Surface Area, Volume, Sine, Cosine, Tangent, Equilateral, Equiangular, Isosceles, Scalene, Segment Bisector
- Area, Surface Area, and Volume:
 - Area: Square, Circle, Triangle, Rhombus, Trapezoid, Parallelogram
 - Surface Area and Volume: Prisms, Spheres, Pyramids and Cylinders
- Triangles:
 - Classifying triangles by angles and/or sides
 - Identifying similar and congruent triangles
 - Pythagorean Theorem
 - Trigonometric Ratios
- Properties of basic quadrilaterals
- Angles formed by two parallel lines cut by a transversal
- Similarity:
 - Proving similarity of geometric shapes
 - Using similarity properties to find corresponding measures
 - Ratios and proportions
- Circles:
 - Using arc measures to find various angles
 - Using similar chords to find missing lengths
 - Using tangent properties to find missing lengths
- Transformations:
 - Translation, Reflections, and Rotations
- Basic Algebra:
 - Order of Operations
 - Combining like terms
 - Solving linear equations
 - Solving a quadratic equation by factoring

USEFUL GEOMETRY WEB SITES

<http://www.yourteacher.com/geometry-tutoring.php>

<http://www.coolmath.com/0-geometry-math-art.html>

<http://www.purplemath.com/modules/index.htm>