



ROCHESTER COMMUNITY SCHOOLS

PRIDE IN EXCELLENCE

Exam for Credit Information Geometry Syllabus

Only a scientific calculator will be allowed for this exam

Units of Study

Quarter 1:

- Basics of Geometry
 - Points, lines, planes, midpoint and distance formula, perimeter and area, and constructing and describing angles
- Reasoning and Proofs
 - Conditional statements, inductive and deductive reasoning, postulates, proving geometric relationships
- Parallel and Perpendicular Lines
 - Properties of parallel and perpendicular lines including proofs and equations

Quarter 2:

- Transformations
 - Translations, reflections, rotations, congruence, dilations, and similarity
- Congruent Triangles
 - Angles of triangles, congruence by SAS, SSS, ASA, and AAS, equilateral and isosceles triangles
- Relationships within Triangles
 - Perpendicular and angle bisectors, medians and altitudes of triangles, and triangle theorems and inequalities in two triangles

Quarter 3:

- Quadrilaterals and Other Polygons
 - Angles, properties, proving parallelograms, and properties of special parallelograms, trapezoids, and kites
- Similarity
 - Similar polygons, and proving similar triangles by AA, SSS, and SAS
- Right Triangles and Trigonometry
 - The Pythagorean Theorem, special and similar right triangles, sine, cosine, and tangent ratios, solving right triangles, and law of sines and cosines

Quarter 4

- Circles
 - Lines and segments that intersect circles, finding arc measures, using chords, and angle and segment relationships in circles
- Circumference, Area, and Volume
 - Circumference and area of circles and polygons, volume and surface area of three-dimensional figures
- Probability
 - Sample spaces, independent and dependent events, two-way tables and probability, probability of disjoint and overlapping events

Resource

- Geometry: Bridge to Success by Larson and Boswell (2015)