## Review of Algebra

Review of equations
Simplifying square roots
Adding and subtracting square roots
Multiplying square roots
Dividing square roots
Parallel Lines and the Coordinate Plane

Parallel lines and transversals
Proving lines parallel
Points in the coordinate plane
The Midpoint Formula
The Distance Formula
Parallel lines in the coordinate plane

## Properties of Triangles

Midsegment of a triangle
Angle bisectors
Medians
Centroid
The Triangle Inequality Theorem
Inequalities in one triangle

## Similarity

Solving proportions
Similar polygons
Using similar polygons
Similar triangles
Similar right triangles
Proportional parts in triangles and
parallel lines

## Trigonometry

Trig. ratios
Inverse trig. ratios
Solving right triangles

Multi-step trig. problems
Trigonometry and area

## Circles

Arcs and central angles
Arcs and chords
Circumference and area
Inscribed angles
Tangents to circles
Secant angles
Secant-tangent and tangent-tangent
angles
Segment measures
Equations of circles

## Constructions

Line segments
Perpendicular segments
Angles
Triangles
Medians of triangles
Altitudes of triangles
Angle bisectors
Circles

## Basics of Geometry

Line segments and their measures
inches
Line segments and their measures cm
Segment Addition Postulate
Angles and their measures
Classifying angles
Naming angles
The Angle Addition Postulate
Angle pair relationships

Understanding geometric diagrams and notation

Congruent Triangles
Classifying triangles
Triangle angle sum
The Exterior Angle Theorem
Triangles and congruence
SSS and SAS congruence
ASA and AAS congruence
SSS, SAS, ASA, and AAS congruences
combined
Right triangle congruence
Isosceles and equilateral triangles

## Quadrilaterals and Polygons

Classifying quadrilaterals
Angles in quadrilaterals
Properties of parallelograms
Properties of trapezoids
Areas of triangles and quadrilaterals
Introduction to polygons
Polygons and angles
Areas of regular polygons

## Right Triangles

The Pythagorean Theorem and its
Converse
Multi-step Pythagorean Theorem
problems
Special right triangles
Multi-step special right triangle
problems

## Surface Area and Volume

Identifying solid figures
Volume of prisms and cylinders

Surface area of prisms and cylinders
Volume of pyramids and cones
Surface area of pyramids and cones
More on nets of solids
Spheres
Similar solids
Transformations
Translations
Rotations
Reflections
All transformations combined
Statistics \& Probability
Sample spaces and The Counting Principle
Independent and dependent events
Mutualy exclusive events
Permutations
Combinations
Permutations vs combinations
Probability using permutations and combinations

