



TOTINO-GRACE 9TH GRADE PLACEMENT EXAM

GEOMETRY TOPICS:

Basic Structures & Notations of Geometry

Segment Addition Postulate

Angle Addition Postulate

Formulas (Midpoint, Distance, Slope)

Classifying Angles

Classifying Triangles (Sides & Angles)

Angle Pair Relationships (Adjacent, Complementary, Supplementary, Vertical Angles, Linear Pair)

Logic Statements (Conditional, Converse, Inverse, Contrapositive, Biconditional)

Reasoning (Inductive, Deductive)

Congruence (Definition, Segments, Angles, Triangles, Circles)

Algebraic Proofs

Two-Column Proofs

Proving Segments Congruent

Proving Angles Congruent

Proving Triangles Congruent

Proving Circles Congruent



CPCTC

Types of Lines (Parallel, Perpendicular, Intersecting)

Parallel Lines & Transversals + Angle Pair Relationships

Parallel Lines & Transversals Proofs

Proving Lines are Parallel

Properties of Equality (Addition, Subtraction, Multiplication, Division, Substitution, Reflexive, Symmetric, Transitive)

Properties of Congruence (Reflexive, Symmetric, Transitive)

Writing Equations of Lines

Triangle Sum Theorem

Triangle Exterior Angles Theorem

Base Angles Theorem

Converse Base Angles Theorem

Pythagorean Theorem

Converse to the Pythagorean Theorem

Special Right Triangles

Right Triangle Trigonometry

Ratios

Proportions

Similarity

Similar Triangles

Similar Polygons



Proving Triangles are Similar

Triangle Inequality Theorem

Triangle Proportionality Theorems

Segments in Triangles (Midsegment, Perpendicular Bisector, Angle Bisector, Median, Altitude)

Points of Concurrency

Perimeter (Square, Rectangle, Triangle, Parallelogram, Rhombus, Kite, Trapezoid)

Circumference

Area (Square, Rectangle, Triangle, Parallelogram, Rhombus, Kite, Trapezoid, Circles, Sectors)

Classifying Polygons

Properties of Polygons

Properties of Quadrilaterals (Parallelograms, Rhombus, Rectangle, Square, Kite, Trapezoid)

Trapezoid Midsegment Theorem

Parallelogram Proofs

Arc Length

Segments & Angles in Circles

