Semester 1 Final Exam Study Guide: Topics

Chapter 1 Exploring Algebraic & Geometric Concepts

Topics: Attributes of polygons, Area as a product and a sum, Area Model, Algebra Tiles, Describing a Graph, Angle Pair Relationships, Angles formed by Transversals, Angles and Sides of Triangles

Important Vocabulary: rhombus, parallelogram, rectangle, square, trapezoid, isosceles trapezoid, isosceles triangle, equilateral triangle, equiangular, equilateral, polygon, angle, segment, rigid transformation, translation, rotation, reflection, polynomial, binomial, area model, zeros, x-intercepts, y-intercept, minimum, maximum, slope, increasing, decreasing, constant, continuous, discrete, domain, range, complementary angles, supplementary angles, linear pair, vertical angles, congruent angles, two parallel lines cut by a transversal, corresponding angles, alternate interior angles, same-side interior angles

Chapter 2 Justification and Similarity

Topics: Triangle Congruence, Flowcharts for congruence, converse statements, dilations, similar figures, Conditions for Triangle Similarity, Determining Triangle Similarity, Similar Triangle Proofs

Important Vocabulary: Congruent Triangles, HL, AAS, SSS, SAS, ASA, Flowchart Proof, Given Information, Conditional Statement, Converse Statement, Dilation, non-rigid transformation, proportional, AA Similarity, SSS Similarity, SAS Similarity

Chapter 3 Probability and Trigonometry

Topics: probability, tree diagrams, area models, unions, intersections, expected value, slope ratio, slope angle, tangent

Important Vocabulary: probability, sample space, probability area model, outcomes, event, intersection, union, Probability Addition Rule, Probability Addition Rule when there is an Intersection, complement of an event, expected value, fair game, slope triangle of a line, slope angle, slope ratio, trigonometry, theta, tangent ratio, hypotenuse, Pythagorean Theorem

Chapter 4 Factoring and More Trigonometry

Topics: quadratic expression, factoring, area model, Casey's pattern (4-4 p. 212), factoring using algebra tiles, factoring with the area model, special cases, factoring completely

Important Vocabulary: expression, terms, coefficients, constant term, polynomial, monomial, binomial, trinomial, factoring, factored form, factor, quadratic expression, standard form, algebra tiles, factored completely, prime (or not factorable), common factor, closed set, special quadratics, difference of squares, perfect square trinomial,