Exam 2 Review

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This is a short exam review to cover the major concepts we've seen in this course, as well as to list definitions, proofs, constructions, and a few other things that you should be able to recall for the exam. This review doesn't cover all the material in the course, but it's a good starting point for studying. Note that any material from Chapters 1-3 is also fair for the exam, but the exam will focus on Chapters 4-6. Chapter 7 is not on the exam.

Definitions to know: Congruent (figures), isometry, tessellation (including regular), area, unit square / square unit, perimeter, altitude/base/height, (principle) square root, Pythagorean triple, 45-45-90 and 30-60-90 triangle.

Facts / Theorems to know: Congruence tests: SSS, ASA, SAS, RHL; properties of isosceles triangles (section 4.3); properties of quadrilaterals (section 4.4); properties of area (section 5.2); what shapes have largest / smallest perimeter per area (section 5.2); areas of triangles / parallelograms (section 5.3); Pythagorean theorem (section 6.1); properties of special triangles (section 6.3).

Proofs to know: Area of a triangle $= \frac{1}{2}ab$ (section 5.3); Pythagorean theorem (section 6.1); properties of 45-45-90 and 30-60-90 triangles (section 6.3).

Teaching sequences: Phases of unknown angle problems (section 4.4); area (section 5.1); square roots and Pythagorean theorem (section 6.2).