Geometry | Mathematics Common Core State Standards

Congruence

1. Experiment with transformations in the plane.

2. Understand congruence in terms of rigid motions.

3. Prove geometric theorems.

4. Make geometric constructions.
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Similarity, Right Triangles, and Trigonometry

5. Understand similarity in terms of similarity transformations.

6. Prove theorems involving similarity.

7. Define trigonometric ratios and solve problems involving right triangles.

8. Apply trigonometry to general triangles.

Circles

9. Understand and apply theorems about circles; including finding arc lengths and areas of sectors of circles.

Expressing Geometric Properties with Equations

10. Translate between the geometric description and the equation for a conic section.

11. Use coordinates to prove simple geometric theorems algebraically.

Geometric Measurement and Dimension

12. Explain volume formulas and use them to solve problems; visualize relationship between two-dimensional and three-dimensional objects.

Modeling with Geometry

13. Apply geometric concepts in modeling situations.

Conditional Probability and the Rules of Probability

14. Understand independence and conditional probability and use them to interpret data.

15. Use the rules of probability to compute probabilities of compound events in a uniform probability model.

16. Use probability to evaluate outcomes of decisions.