**Core Connections Integrated II Beth Spaulding**

[**bspaulding@sjisd.wednet.edu**](mailto:bspaulding@sjisd.wednet.edu)

**ebook 360-378-5215 Ext. 7122**

**CPM.org Support tab->Parent Support**

**Homework help**

 CPM provides a *Parent Guide with Extra Practice* available for free download cpm.org of in booklet form for purchase. In addition to practice problems with answers, the *Parent Guide with Extra Practice* provides examples with detailed explanations and guidance for parents and tutors.

**Chapter 1: Exploring Algebraic and Geometric Relationships**

**Chapter 2: Justification and Similarity**

**Chapter 3: Probability and Trigonometry**

**Chapter 4: Factoring and More Trigonometry**

**Chapter 5: Quadratic Functions**

**Chapter 6: More Right Triangles**

**Chapter 7: Proof and Conditional Probability**

**Chapter 8: Polygons and Circles**

**Chapter 9: Modeling with Functions**

**Chapter 10: Circles and More**

**Chapter 11: Solids**

**Chapter 12: Counting and Closure**

Key concepts addressed in this course are:

* Geometric transformations (reflection, rotation, translation, and dilation) and symmetry.
* Relationships between figures (such as similarity and congruence) in terms of rigid motions and similarity transformations.
* Properties of plane figures.
* Proofs of geometric theorems (investigate patterns to make conjectures, and formally prove them).
* Modeling with geometry.
* Measurements of plane figures (such as area, perimeter, and angle measure).
* Theorems about circles, including arc lengths and areas of sectors.
* Measurements of three-dimensional solids (such as volume and surface area).
* Tools for analyzing and measuring right triangles, general triangles, and complex shapes (such as the Pythagorean Theorem, and trigonometric ratios).
* Probability (independence and conditional probability, compound events, expected value, and permutations and combinations).
* Investigation of a variety of functions including square root, cube root, absolute value, piecewise-defined, step, and simple inverse functions.
* Representations of quadratic functions with a graphs, tables, equations, and contexts.
* Symbolic manipulation of expressions in order to solve problems, such as factoring, distributing, multiplying polynomials, expanding exponential expressions, etc.
* Using algebra to write and solve equations arising from geometric situations.