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<http://mapps.math.arizona.edu/>

Workshops for parents of children in grades 5-8

This section is a summary of each workshop including the national math standard(s) that are addressed.

1. My Giant (Proportional Reasoning)

Measurement (Solve a problem using ratio and proportion)

My Giant deals with proportional reasoning in measurement. The main mathematical goal of the workshop is to engage participants in an exploration of proportional reasoning.

2. Garage Patterns (Exploring Patterns and Equations)

- *Algebra (Tables, graphs, and rules (or equations))*
- *Connections (Build on participant's current mathematical ideas about patterns to develop new ideas)*

Garage Patterns introduces the technique of organizing information in a table or graph and using it to predict numbers that follow in a sequence.

3. Styles in Tiles (Developing Spatial Sense)

- *Geometry (Spatial Sense)*
- *Algebra (Computation using cost factors)*

Styles in Tiles is a workshop in both algebra and geometry. The session begins with a story. The task is to make an attractive drawing and figure out what it costs.

4. Problem Solving (Logic and Reasoning)

- *Problem Solving (Adapt and apply a variety of appropriate strategies to an open-ended problem)* solving
- *Reasoning and Proof (Make assumptions and develop a convincing argument about their solution to the problem)*

In **Problem Solving**, participants rate the qualities Fortune 500 companies look for in an employee. Participants then have the opportunity to solve an open-ended problem.

5. **Distance Around (Investigating Pi)**

- *Measurement (Measure circular objects, ratio)*
- *Geometry (Radius, diameter, circumference, pi)*

In **Distance Around**, participants explore the numerical value of pi and how it is used as a tool.

6. **Probability (Chance and Predictions)**

Data Analysis and Probability (Understand and apply basic concepts of probability)

In **Probability**, participants explore the likelihood of an event. They do a mathematical investigation into the probabilities of the events of the game.

7. **Wrap It Up! (Geometry: Netting)**

Geometry (Netting, Visualize three dimensional objects and their two-dimensional nets)

In **Wrap It Up!** participants work with nets for cubes.

8. **Show Me the Money (Compound Interest on Spreadsheets)**

- *Number and Operations (Percent, decimals)*
- *Algebra (Compound Interest, exponential growth, writing formulas)*
- *Representation (Calculate interest rate by using calculator and spreadsheet on the computer)*

In **Show Me the Money**, participants work with spreadsheets to find the value, over many years, of an investment in an account that is compounded annually.

9. **Back to the Future (Using Communication Technology for Mathematics)**

Technology Principle (Enriches students learning of mathematics)

Back to the Future is a computer lab workshop. Participants consider the changes in communication that have occurred over five generations and explore how the teaching of mathematics has changed in response to the changes in the world around us.