

PROBLEM SOLVING

Problem Solving

The process by which an unfamiliar situation is resolved

Polya

How to Solve It

1. Understand the Problem
2. Devise a Plan
3. Carry Out the Plan
4. Look Back

Common Problem Solving Strategies

- Make a drawing
- Solve a simpler problem first
- Guess and check
- Make a table
- Use a model
- Work backward

Mathematical Practices

MP1: Make sense of problems and persevere in solving them

MP2: Reason abstractly and quantitatively

MP3: Construct viable arguments and critique the reasoning of others

MP4: Model with mathematics

MP5: Use appropriate tools strategically

MP6: Attend to precision

MP7: Look for and make use of structure

All Shook Up

Nine people meet at a party. They all exchange handshakes. How many handshakes are exchanged?



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