



Suggestions For  
Problem Solving  
(from Mathematician  
George Polya's book:  
“How To Solve It”, 1945)

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# How To Solve It

- George Polya has four steps for solving problems:
  - 1. Understand The Problem
  - 2. Devise A Plan
  - 3. Carry Out The Plan
  - 4. Look Back

# Understand The Problem

- Is it possible to do this?
- Can I verbalize what I need to do?

# Devise A Plan

- Have I seen this before?
- Have I seen it in a slightly different form?
- Do I know a related problem?
- Here is a problem related to mine that is solved. Can I use it?
- Can I restate this problem?
- If I can't solve this problem, can I first solve some related problem?
- Can I solve part of the problem?



# Carry Out The Plan

- Carry out the plan, checking each step as you work to see if it makes sense.

# Look Back

- Is the result what I expected?
- Can I get this same result in a different way?
- Can I use this result in some other problem?
- Can I use my method in a different problem?