

# Polya's Technique

# **Problem Solving Framework Steps**

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

# **STEP ONE: Understand the Problem**

- Identify Inputs and Outputs
- Ask "What if" Questions

## **STEP TWO: Devise a Plan**

- Come up with more than one plan
- Choose a solution based on:
  - Your Ability
  - Code's Performance
  - Code Maintainability / Readability

## **STEP THREE: Carry Out the Plan**

- Quickly dispense with boilerplate code
- Write code 'outside in' ("sandwich code")

## **STEP FOUR: Look Back**

- Ensure the correctness of your solution (and keep working until it's correct)
- Once it's correct, decide where you want to go:
  - You could refactor <https://github.com/gSchool/javascript-curriculum/blob/master/Refactoring.md>
  - You could burn-and-build (delete and rewrite)
  - You could write a real test suite