

# Problem Solving

## Our List of Strategies

- gather known information
- think through possibilities
  - jot down a bunch
- consider spectrum of choices
  - safe to risky/aggressive
- draw pictures or diagrams
- try a simpler version of the problem
- take a break & come back to it
  - exercise, creative activity, sleep
- reassess/reread problem
  - what might I be overlooking?

- refer back to similar problem
- look back: what have I tried?
- ask for help

## Polya's Advice

- 1) Understand problem
- 2) Strategize (lots here!)
- 3) Execute a plan
- 4) Look back

(Not really linear.)

## Cultivating a Growth Mindset (Le-Cunff)

- ① neuroplasticity (brain like a muscle)
- ② value process over results
- ③ weaknesses are areas for growth
- ④ remember purpose ("why")
- ⑤ not "failures," but "steps"
- ⑥ value effort over talent
- ⑦ challenges = opportunities
- ⑧ understanding more important than speed
- ⑨ don't chase others' approval
- ⑩ welcome input & feedback from others
- ⑪ celebrate actions, not attributes
- ⑫ work together
- ⑬ reflect on progress
- ⑭ remember past accomplishments
- ⑮ add "not yet" to fixed mindset statements