

# Welcome!



# Peter Kofler

- Ph.D. (Appl. Math.)
- Professional Software Developer for 15+ years
- “fanatic about code quality”
- I help development teams





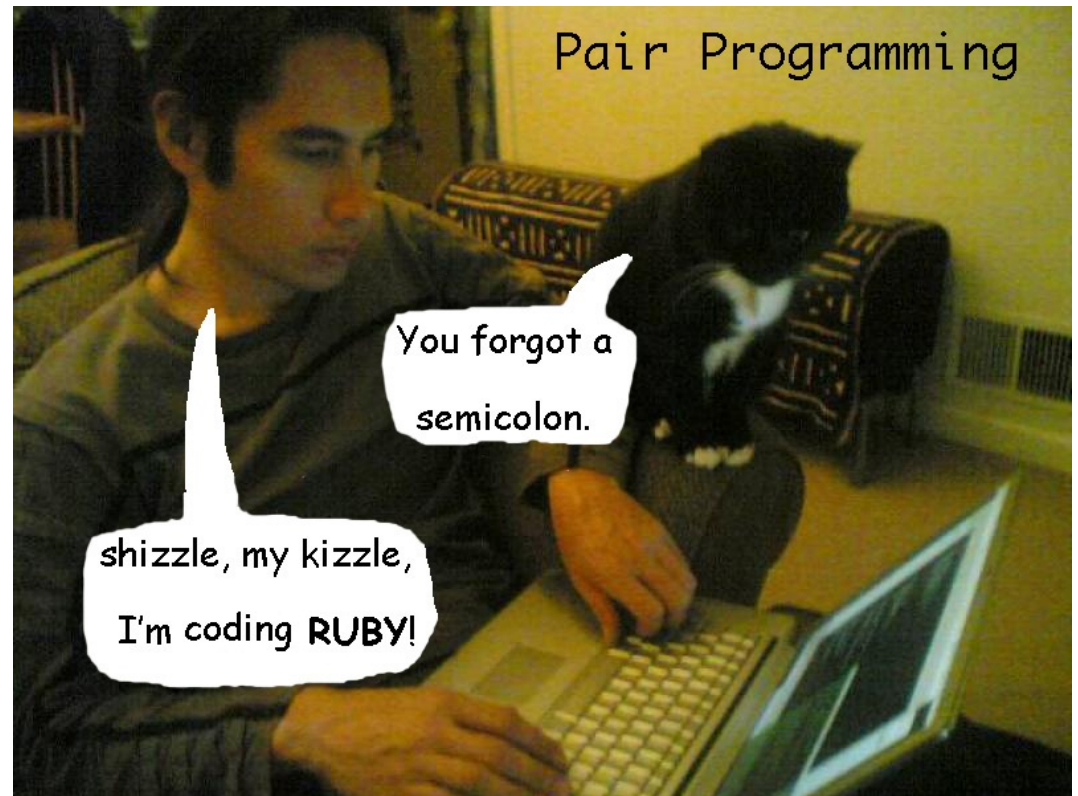
# I help development teams with

- Professionalism
- Quality and Productivity
- Continuous Improvement



# Mentoring

- Pair Programming
- Programming Workshops
- Deliberate Practice, e.g. Coding Dojos



# Developing Quality Software Developers



# Coderetreat

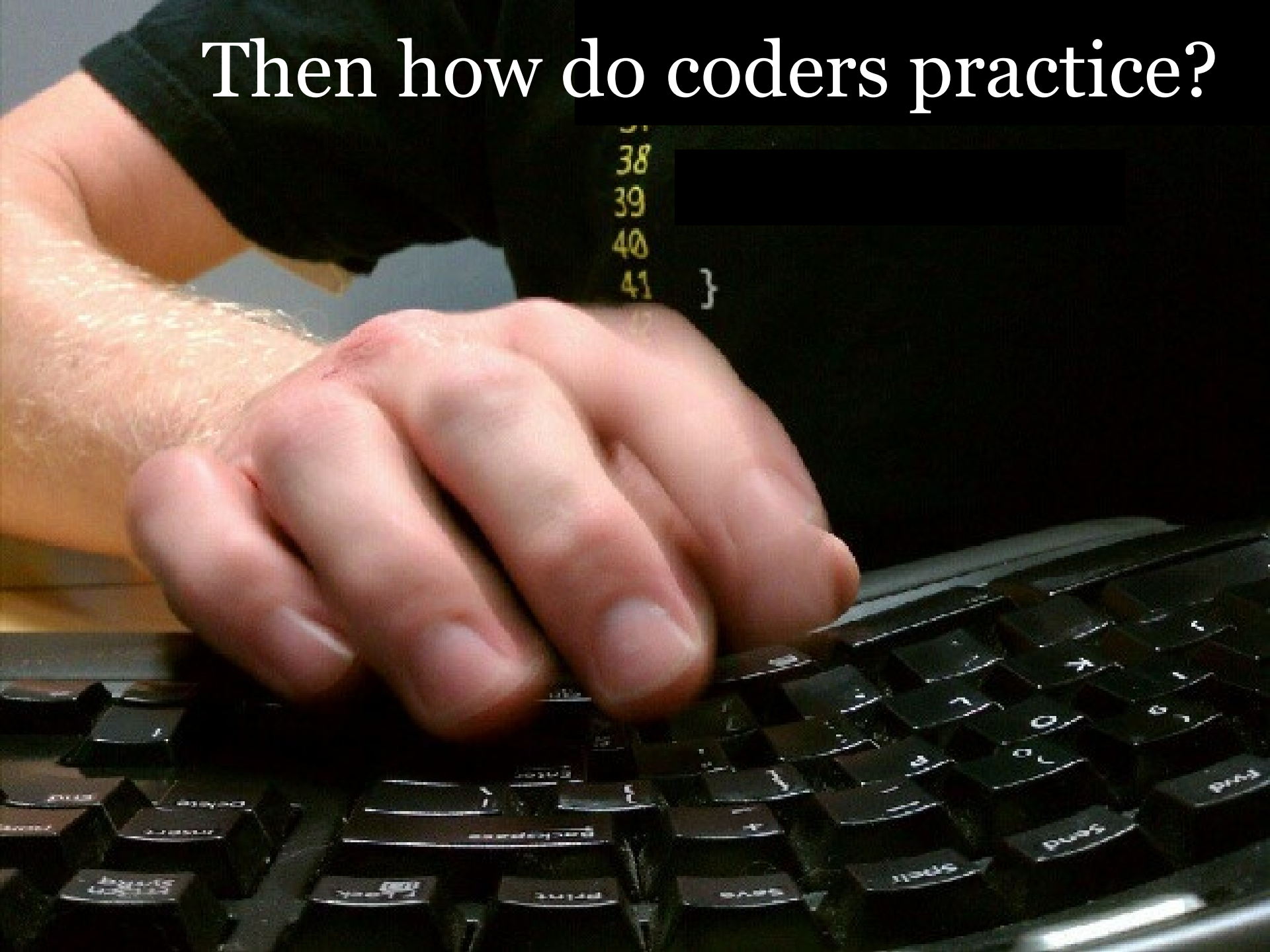
a day of learning and practice



# How do musicians practice?



# Then how do coders practice?



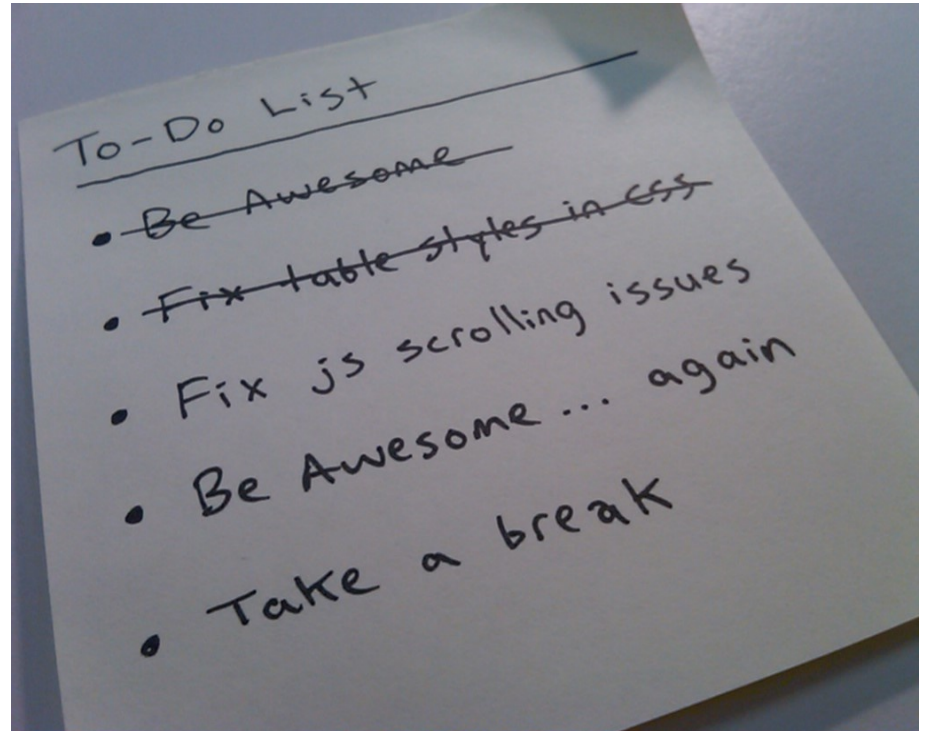


# Why repeat the same kata?

- de-emphasise the generation of code
- concentrate on
  - the process of writing the code
  - naming test cases
  - the Red/Green cycle

# Day Structure

- Introduction
- 3 Sessions of
  - Coding
  - Retrospective
- Lunch
- 3 Sessions
- Retrospective



# Code Retreat Principles

- Learn through pairing (switch pairs)
- Practice
- Experiment
- Have **fun!**



**Coderetreat**

*- honing the craft together*

Coderetreat, <http://coderetreat.org/>



# Coding Dojo Mindset

- Safe place outside work
- We are here to learn
- Need to slow down
- Focus on doing it right
- Collaborative Game



# Constraints

- Challenges during a dojo or coderetreat
- Moving to the extreme is a way of learning
- Examples
  - Missing Tool (No Mouse, ...)
  - Missing Feature (No IFs, ...)

# Why delete the code?

- No. Listen.
- Stop trying to go faster, start trying to go slower.
- Don't think about finishing, think about improving.
- Think about practising. As a team.
- That's what this day is for. Nothing else.



# How to take advantage

- Embrace freedom of deleting the code
- Do what you always wanted but couldn't
- Get out of your comfort zone
- Pair with strangers in languages you do not know
- What you learn is your responsibility
  - Think about what you want to practice

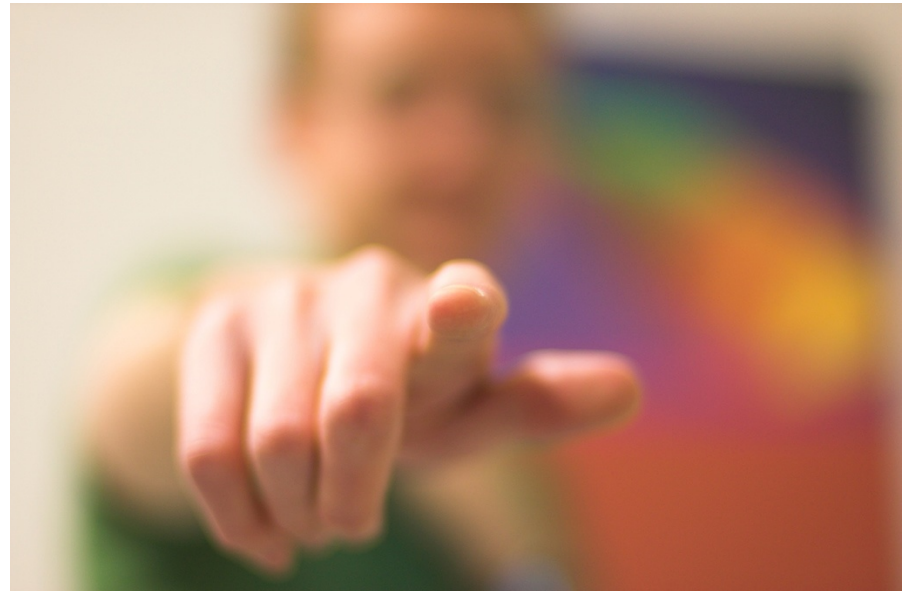
# Think About Learning Topics

- Why are you here?
- What do you want to learn?
- What do you expect from today?
- How can this happen?
- How can I help you?
- Write your concrete needs on Post-its!



# What do you want to learn?

- TDD
- Pair Programming
- Clean Code
- Design
- Other Languages
- ...





# LEARNING GOALS

NEW  
①

something new  
TO IMPROVE THE CODE KNOWLEDGE

new ways of thinking  
TO OPEN MY MIND TO OTHER SOLUTIONS

LEARN FROM SENIOR PROGRAMMERS  
efficiency

Improve my skills  
KNOW OTHER WAY TO CODING

IMPROVE MY SKILL  
NEW POINT OF VIEW

meet some people from industry

meet experienced people

BEST PRACTICE

NEW POINT OF VIEW

TDD  
③

LOVING TDD

RECAP THE FUNDAMENTALS OF TDD

RED & GREEN REFLECTOR FOR REAL

TDD in F.E JS

TDD

RE-LEARN SMALL STEPS

DP  
①

DESIGN PATTERNS

TO USE TO USE PROBLEM SOLVING STRATEGIES

PAR  
③

TEST PAIR PROGRAMMING

team work

CODE SHARING

TO IMPROVE MY ENGLISH

LANG  
④

C#

iOS swift

NODE JS

PYTHON

BEST Method for learning New Lang

PYTHON

REACTIVE PROGRAMMING

→ JAVA, PHP, C++, C#, JS, Python, Scala,

CLEAN  
⑬

Debugging HACKS

WRITE BETTER CODE

Secure my code  
WELL STRUCTURED CODE  
ALREADY UNDERSTOOD

HOW TO RE-ORGANIZE JAVA CLASSES  
Planning the code/project

IMPROVE LOW-DEPENDENCIES AND HIGH COHERENCE  
how to project

ORGANIZE THE CODE EFFICIENTLY  
WATER TO ACHIEVE READABILITY IN PAPER OR OFFICE

CLEAN CODE AND BEST PRACTICE

FP  
④

List and Functional Programming

EMOTIONS

TESTING DEVELOP W/O STRESS

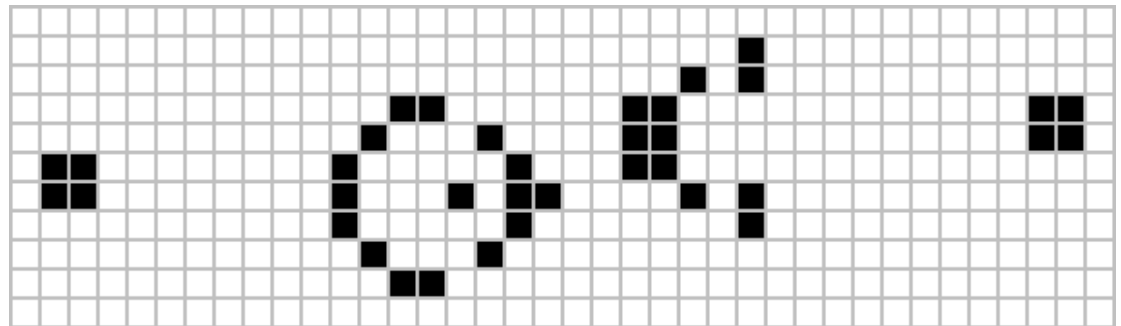
KEEP ALIVE THE PASSION OF CODING

TO FACE PROBLEMS W/ A LESS ANGRY WAY

graphics

# Conway's Game of Life

- infinite, two-dimensional grid of cells
- interacts with its eight neighbours
- at each step in time, transitions occur
- four rules for cells depending on number of live neighbours



[http://en.wikipedia.org/wiki/Conway%27s\\_Game\\_of\\_Life](http://en.wikipedia.org/wiki/Conway%27s_Game_of_Life)

# Rules of Cell Interaction

- Any live cell with fewer than two live neighbours dies by under-population.
- Any live cell with two or three live neighbours lives on to the next generation.
- Any live cell with more than three live neighbours dies, as if by overcrowding.
- Any dead cell with exactly three live neighbours becomes a live cell, by reproduction.



# Programming Languages?



# Get Ready!

- Find a pair.
- Agree on language.
- Use one computer.
- Set up empty project.
- Write a failing test.
- Implement Game of Life.
- Use TDD if possible.



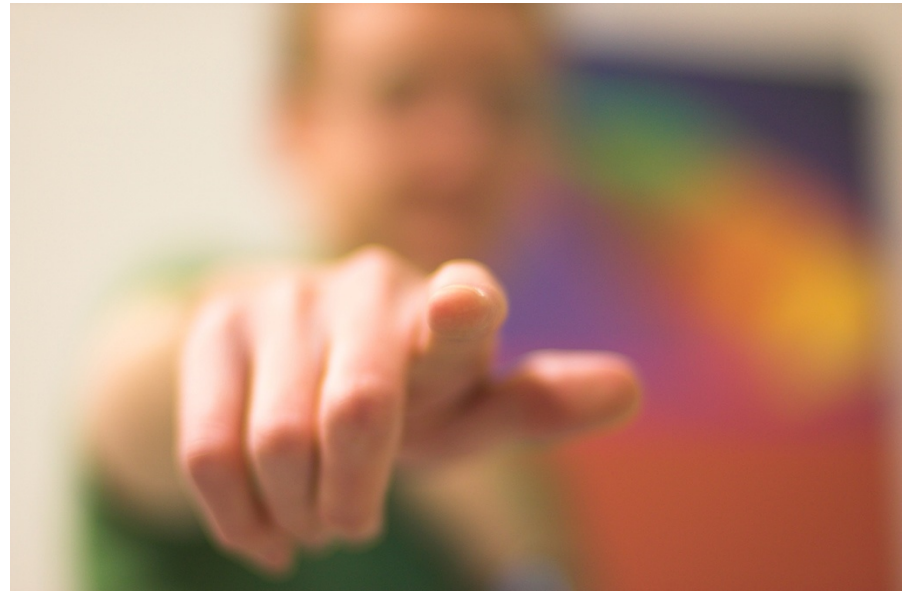
Don't Focus on  
Getting it Done.  
Focus on Doing  
It Perfectly.

# Our Sessions









- do your best
- Verbs instead of Nouns
- Solution Seeker
- Ping Pong Mute
- Clean Code: 4 lines/2 param per method
- No If (Fun Session)

# Closing Circle


- What did you learn today?
- What surprised you today?
- What will you do differently in the future?





Silence Mommy She's too Future R  
 Sonoma X turn She's too Future R  
 Sonoma X turn She's too Future R



A hand-drawn cloud with raindrops falling from it, and a sad face with a downward-curving mouth.

I learned:	TDD IS NOT A PANACEA	TEST YOURSELF	SWIFTO	TDD #	BETTER VARIATIONS NAMES DIFFERENT APPROACHES TO SOLVE A PROBLEM
TRY MANY METHODS	THINK BEFORE CODING	IF IS EVERYTHING	NEW APPROACHES	A DIFFERENT APPROACH WRITING CODE	I CAN'T LIVE WITHOUT IF
TESTS	Think Differently Team Work	TDD	clean Code	PROGRAMMING RESEMBLES CROSSWORDS SOMETIMES	SHORTCUTTING FUNCTIONS
SMOKE PIPE	IF ARE OVERVALUED	PAIR PROGRAMMING IS EASIER THAN I THOUGHT	CLEAN CODE #	IF ARE DEMONS!	PRACTICE WITH SENIOR DEVELOPERS
AT LEAST THINK TO 3 SOLUTIONS	CLEAN CODE BRIEF/SMALL READABLE CODE	HOW TO TDD	PRACTICE PRACTICE PRACTICE!	TIL: There is a lot more to learn (I'm dumb)	TIL: TDD IS USEFUL
					TIL: SIMPLE CONSTRAINTS imply huge challenges
					NORMING I WAS ACTIVE AFTERNOON BACK TO HOME DIE
					IS THERE SOME ONE WHO KNOWS MY NAME!
					THERE'S NO FREE LUNCH





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[www.code-cop.org](http://www.code-cop.org)

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