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# What is good code?

## Evaluating code quality

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**[github.com/dcarral/what-is-good](https://github.com/dcarral/what-is-good)**





# Agenda

→ **Intro**

→ **Craft**

Let's solve a problem!

→ **Show**

Which approach did you use?

→ **Evaluate**

Code metrics.

What do the numbers say?

→ **Retrospective**

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# What is good?

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**Good?**







A scenic view of a bay at sunset. The sky is a mix of light blue and orange. The water is dark with some ripples. In the background, there are mountains. On the right, there is a small town with buildings and a palm tree. The word "Better?" is written in large, bold, black letters in the center of the image.

# Better?

ZEN  
AND THE  
ART OF  
MOTORCYCLE  
MAINTENANCE

*An Inquiry into Values*

ROBERT M. PIRSIG

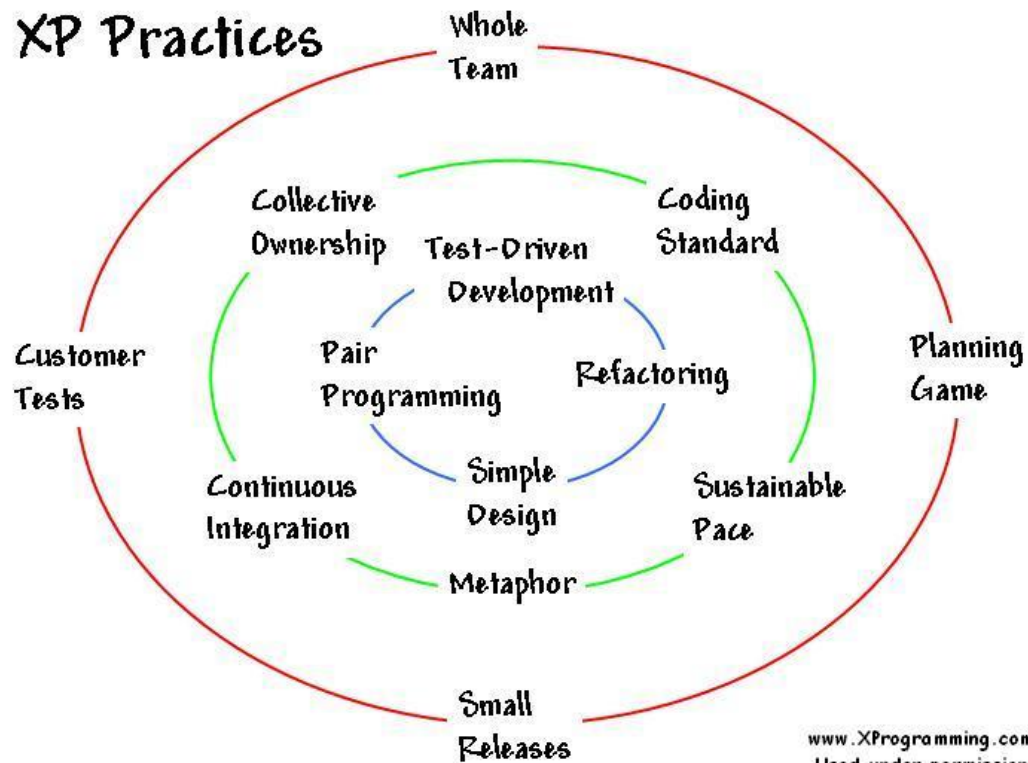
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# Craft

## The Kata

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# XP Practices



[www.XProgramming.com](http://www.XProgramming.com)  
Used under permission

# Pair programming





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**99 bottles of beer**

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**Set-up:**  
**[github.com/sandimetz/99bottles-polyglot](https://github.com/sandimetz/99bottles-polyglot)**



**35 mins left**

**Test suites:**  
**[github.com/sandimetz/99bottles-polyglot](https://github.com/sandimetz/99bottles-polyglot)**

The song 99 Bottles of Beer is total bullshit. There's no way I'm passing around a bottle of beer. There's 99 of them... get your own damn beer!



somee cards  
user card



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**Show**  
**(or not ;)**

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# How did you solve it?

## Why?



### Reminder

The goal is not to judge our coding skills.

We're discussing how to **evaluate code quality**.

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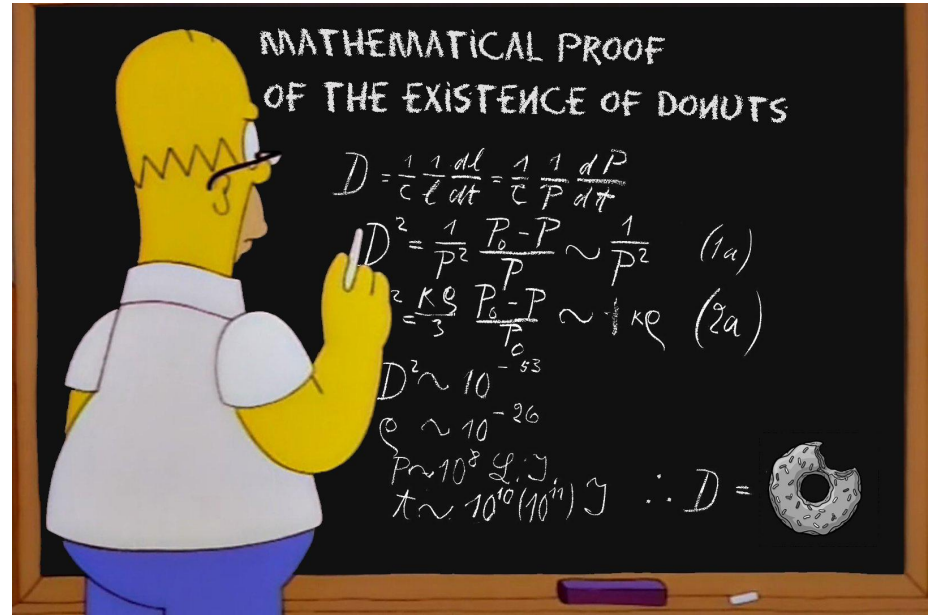
# Evaluating code quality

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Based on opinion



# Based on facts





# Metrics

*“Metrics are fallible but human opinion is no more precise. Checking metrics regularly will keep you humble and improve your code.”*

Sandi Metz, Katrina Owen

# Some metrics

- Ca 1960: LOC
- 1976: Cyclomatic complexity
- 1997: ABC

# ABC

- Assignments
- Branches (of control)
- Conditions

**99 solutions (nah, just 4)**

# What do the numbers say?

Solution	LOC	Flog total	Flog worst bit
#1 Incomprehensibly concise	19	42.5	36.2 (#verse)
#2 Speculatively general	63	54.8	28.5 (lambdas)
#3 Concretely abstract	92	67	15.3 (#challenge)
#4 Shameless green	34	25.6	19.3 (#verse)

Code Responsibly

Ruby Edition

# 99 Bottles of OOP

A Practical Guide to Object-Oriented Design



Sandi Metz & Katrina Owen

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# Retro time

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# Thanks!

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