



# Fun With Rubik's Cubes

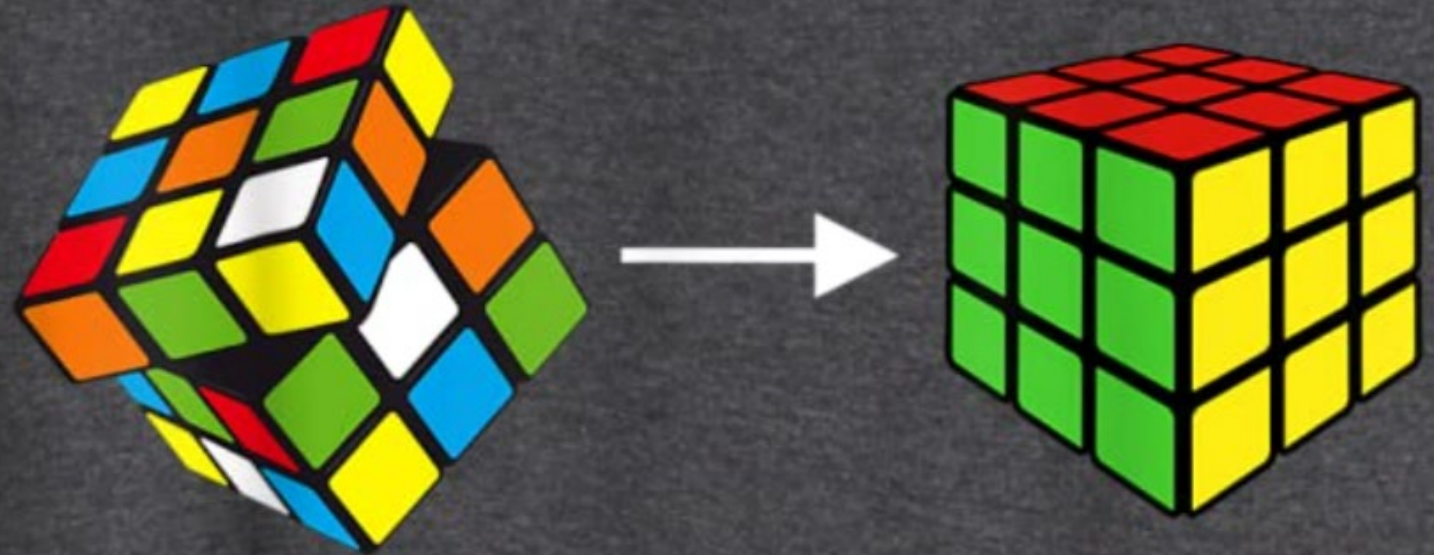
A. Gwinn Royal  
Associate Professor, Mathematics  
Ivy Tech Community College

Lauren Rose  
Associate Professor, Mathematics  
Bard College



# The Shirt

# HOW TO SOLVE



ROTATE THE SIDES  
TO THE POSITIONS  
AS SHOWN

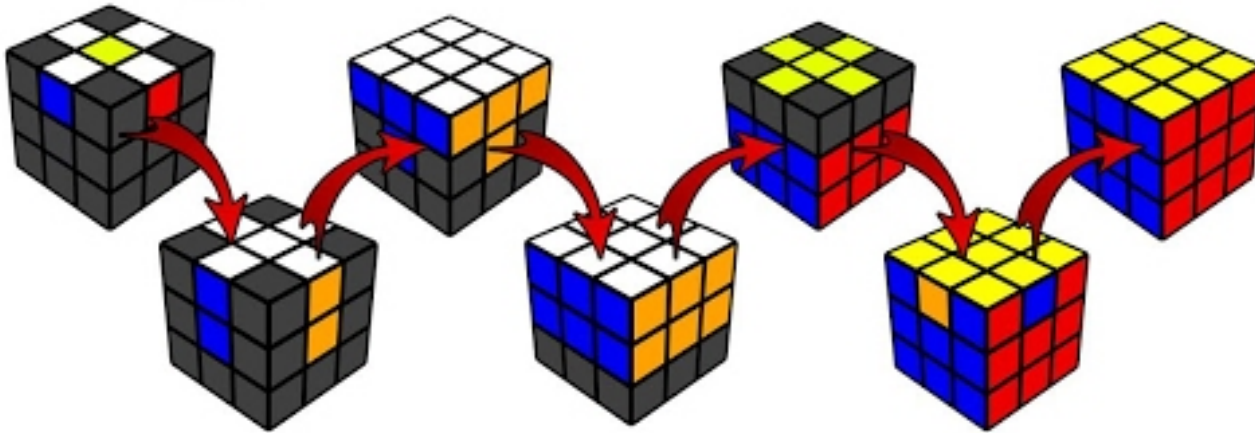
There's just  
one (BIG)  
step to solve  
the cube.  
Really.



# Solving Basics

# Beginner's Method Steps

## Rubik's Cube Beginner's Tutorial



- ◇ Daisy
- ◇ White Cross
- ◇ First Layer
- ◇ Second Layer
- ◇ Yellow Cross
- ◇ Yellow Corners
- ◇ Yellow Edges (ta-da!)



# General Takeaways



# Small Group Size is Better

- ◆ One or two learners per facilitator provides more personal attention
- ◆ Set up stations or breakout rooms based on solving level
- ◆ Allow flexibility so that learners can move freely as they progress or need extra help



# Multiple Sessions is Better

- ◆ Most beginning cubers will need more than a single session to learn a complete solve
- ◆ Cubing is a popular activity that lends itself naturally to additional sessions
- ◆ Distributed practice is key to pattern recognition and memorization of algorithms





# More Resources is Better

- ◆ Have several facilitators with different levels of solving experience (at least one should be able to do a full solve!)
- ◆ Have more than enough cubes on hand, in various states of completion, to aid in instruction
- ◆ Have literature available so that learners can switch between group and individual practice



# Making Mistakes is Better

- ◆ Rich discussions often come from cubing mistakes—embrace them!
- ◆ New cubers can learn troubleshooting strategies
- ◆ Making mistakes drives incentive to improve
- ◆ Try to get a solving step correct three times in a row before moving forward



# Online Takeaways

# Lessons Learned

- ◆ Virtual participants may get confused as they look from facilitator, to their own (mirrored) image, to the cube in their own hands
- ◆ Some learners are still working on “left” vs. “right”
- ◆ Green face of cube competes with green screen technology
- ◆ Cubers are younger—“clockwise” is (becoming) antiquated
- ◆ What’s the challenge implied throughout this slide deck?





# Practice, Practice, Practice

- ◆ Get familiar with technology well before the event
- ◆ Know how you plan to teach a particular strategy
- ◆ Develop some muscle memory so that you can watch participants rather than watch your hands
- ◆ Decide who/how to deal with questions (in the chat or through audio)



# The Cube Cam

- Provides real-time live demonstration
- Mimics the side-by-side “solve it together” style of in-person events
- Facilitators remember to stay in the video frame while teaching

# Scenes from a Julia Robinson Math Festival

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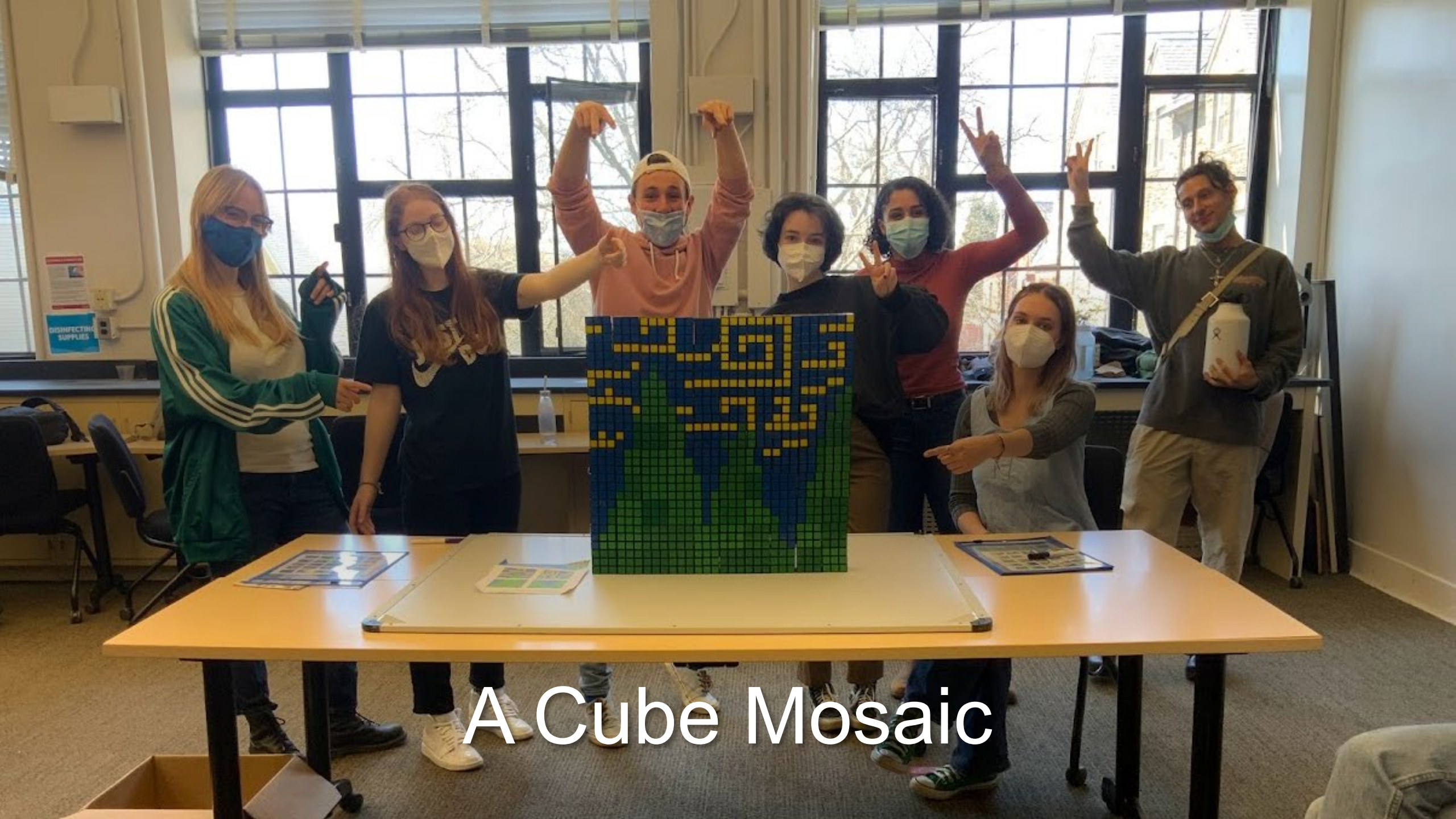


# A Puzzles and Games Class at Bard College



- ◆ Mosaic builds are inclusive of cubers with no experience
- ◆ Fun for first-layer solvers
- ◆ Collaborative effort
- ◆ Low tech – just cubes and a paper grid design!

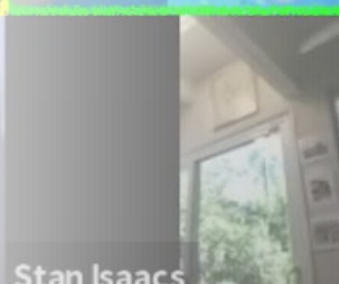
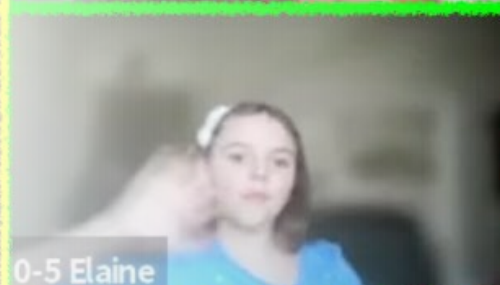
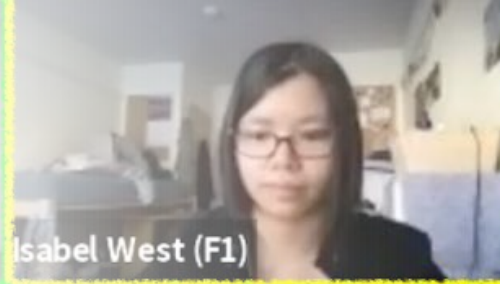




A Cube Mosaic

# A MAGPIES “Girls Who Cube” Session

- Featuring nine-time gold medalist professional Speed Cuber Sydney Weaver!



Questions?

Feel free to contact us:

A. Gwinn Royal  
aroyal9@ivytech.edu

Lauren Rose  
rose@bard.edu

Happy cubing!



*Welcome to The After Party!*

The T-shirt (on Amazon.com): <https://a.co/d/b1axtJn>

Full-size 3x3x3 cubes (on Amazon.com):

20-pack for \$33.99

<https://a.co/d/6HzW5Zz>

15-pack for \$26.99

<https://a.co/d/ikpEkJI>

Official Rubik's Cube (guides, videos, merch): <https://rubiks.com>

Online cubing:

<https://rubikscu.be>

<https://iamthecu.be>

<https://www.cubetimer.io>

<https://cstimer.net>

Phone holder (to use as webcam—on Amazon.com):

<https://a.co/d/8hW35hF>

Wacom tablet (for making annotations—on Amazon.com):

<https://a.co/d/8hW35hF>

