

Mathematical Zendo

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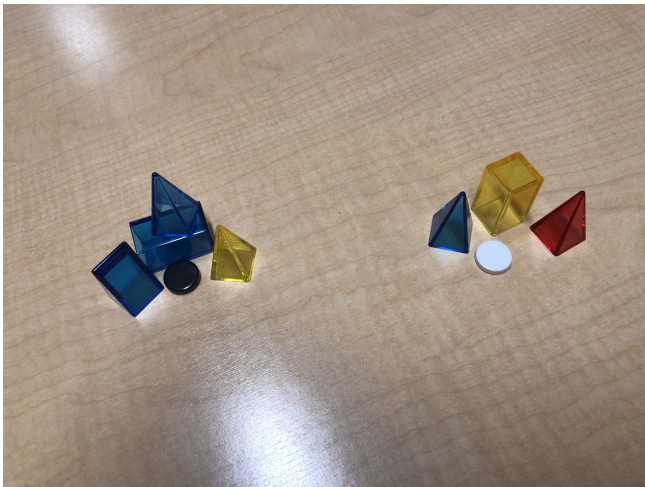
- Zendo is a logic game. Players deduce a secret rule.



- Rules pertain to structures built out of prisms.



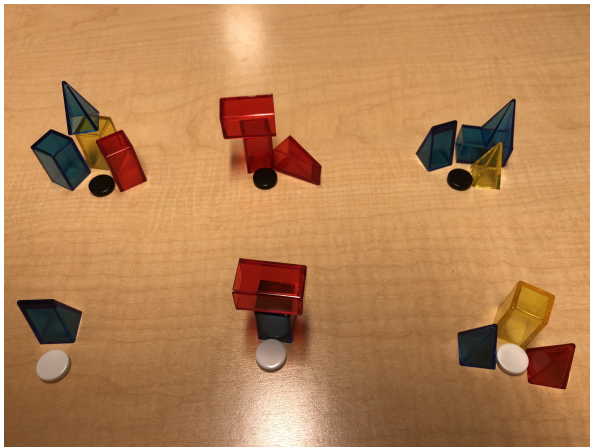
- Structures are marked according to whether or not they satisfy the hidden rule.



- Can you deduce the secret rule?



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The structure must contain exactly one blue piece.

- Mathematical Zendo is a game based off of Zendo

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- Modified the game to include common mathematical topics

- Mathematical Zendo is a game based off of Zendo
- Modified the game to include common mathematical topics
- Mathematical objects replace prisms

Think about possible hidden rules for this situation:

Satisfies

3 17

Does Not Satisfy

-8 -14

Think about possible hidden rules for this situation:

Satisfies

3 17

Does Not Satisfy

-8 -14

The rule is that the number must be positive!

- Student engagement and active learning

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- Community building

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- Students practice procedural skills in a fun setting

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- Community building
- Students practice procedural skills in a fun setting
- Easily aligns with content standards

On your turn you should:

1. Choose a number.
2. Quiz or Tell.
3. Guess the rule!

If you guess wrong I will provide a counterexample.

Satisfies

3

Does Not Satisfy

92

Satisfies

3

Does Not Satisfy

92

4

Satisfies

3

Does Not Satisfy

92

4

Satisfies

3

Does Not Satisfy

92 4

The number must be odd!

Satisfies

3 2

Does Not Satisfy

92 4

Satisfies

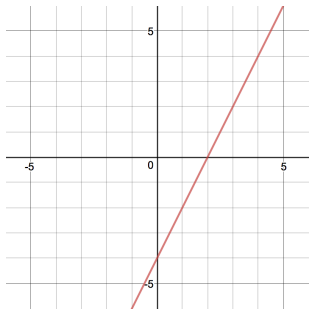
3 2

Does Not Satisfy

92 4

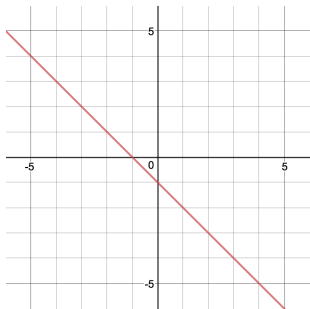
The number must be prime!

Satisfies



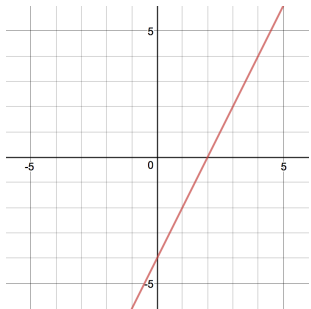
$$y = 2x - 4$$

Does Not Satisfy



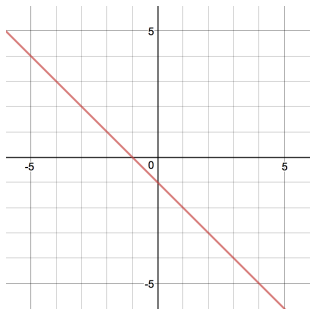
$$y = -x - 1$$

Satisfies



$$y = 2x - 4$$

Does Not Satisfy



$$y = -x - 1$$

The rule is that the function must have a positive slope!

- Full teacher guide
 - » Numbers and Linear Functions
 - » How to play and example games
 - » Tips for teachers and for students
 - » Rule cards
 - » One page summary sheets
 - » Suggested Openers



- Expand topics

- » Systems of equations

- » Groups

- » Functions

- » Graphs

- » Matrices

- » Other fields

Satisfies

Blue Whale
Gorilla

Does Not Satisfy

Rattle Snake
Bald Eagle

Satisfies

Blue Whale
Gorilla

Does Not Satisfy

Rattle Snake
Bald Eagle

The rule is that the organism must be a mammal!

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Teacher Guide

