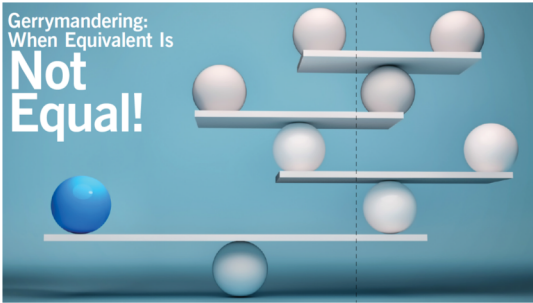




Gerrymandering:
When Equivalent Is
**Not
Equal!**



Farshid Safi, Sarah B. Bush, & Siddhi Desai. (2018).
Gerrymandering: When Equivalent Is Not Equal!
Mathematics Teaching in the Middle School, 24(2), 82-89.

Reasoning and Sense Making

Island Inheritance

You and 8 family members have inherited the island with the surrounding waters.

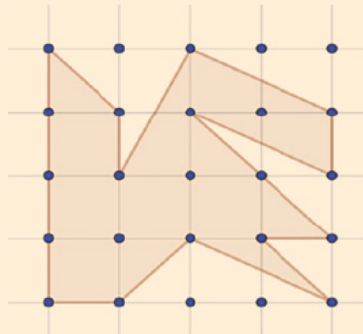


How do you determine fair ways to split up the region?

Reasoning with Area of a Region

Fig. 2 The Dragon Task provided a visual exploration of area.

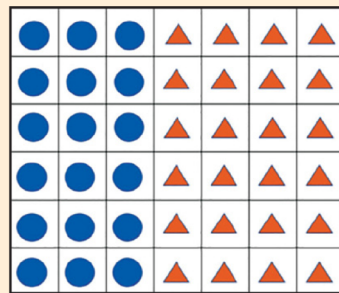
Finding the Area of a Region



What strategies did you use? Why?

Gerrymandering Task: Part 1

1. Create 6 equal districts by having ____ shapes in each district.



Districts won by Circles ____

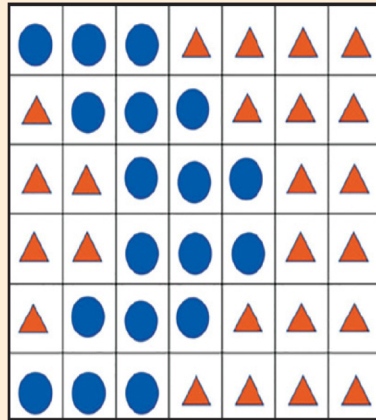
Districts won by Triangles ____

Overall winner of the state ____

What strategies did you use? What do you notice/wonder?

Gerrymandering Task: Part 2

2. Is it possible to create the same result (winner) as part 1 with 6 equal districts in a different way? Use the figure to illustrate how the district could be reconfigured.



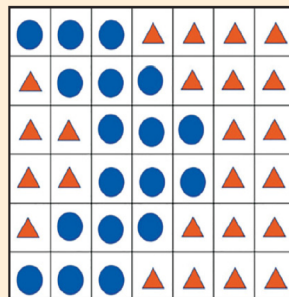
Districts won by Circles _____

Districts won by Triangles _____

Overall winner of the state _____

Gerrymandering Task: Part 3

3. Is it possible to create a *different* result (winner) with 6 equal districts?



Districts won by Circles _____

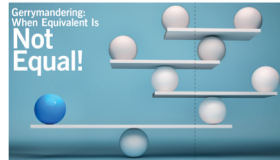
Districts won by Triangles _____

Overall winner of the state _____

What strategies did you use? What do you notice/wonder?

Thoughts and reflections

Reflections



- Do mathematical approaches necessarily and inherently advocate for fair results?
- What are the potential mathematical and societal impacts of reconfiguring districts so that a particular group is more likely to win the state election?

Resources

Games:

- [Mapmaker: The Gerrymandering Game](#)
- [The ReDistricting Game](#)

In the news:

- [Metric Geometry and Gerrymandering Group](#) (Moon Duchin of Tufts University and Justin Solomon of MIT)
- [The Gerrymandering Project](#) (fivethirtyeight.com)