

“Tiling a Swimming Pool”

Core Math

- Relationships between perimeter and area
- Discovering polygons with more sides than rectangles
- Introducing the idea of a circle as an infinitely sided polygon

Standards/Benchmarks

Properties and Relationships
Direct and Indirect Measurement
Modeling

Level

Middle School
6th grade

Area of Implementation

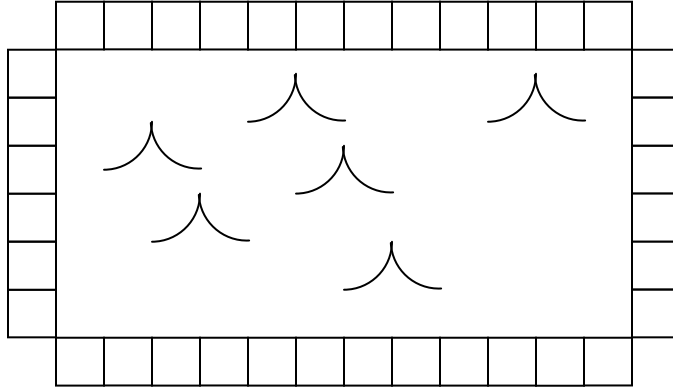
- Introduction into polygons
 - Students can explore and discover the idea of having more than three or four sides to their pool. Hopefully this would build intuition and motivation to start learning about polygons.
 - Students will get to see how polygons with the same perimeter can have different areas.
- Transition from polygons to circles
 - After students have learned about polygons this activity could be a fun way for students to think about a circle as an “infinitely sided polygon.” Discussions about cutting tiles in half or more should be encouraged.

Contact

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Tiling a Swimming Pool

Sam bought 36 tiles, each is a one foot square. Sam wants to build a small pool in his backyard using the tiles to line the edge of the pool.



Sam is thinking about building the longest possible pool possible so he can swim laps how should he use the tiles to line the edge of the pool?

Sam then decides that the shape of the pool doesn't matter, he just wants the biggest pool possible for pool parties. How should he use the tiles to line the edge of the pool?