

**January 30<sup>th</sup> BMTC**  
**Mathematical Tiling &  
Organization**  
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Abstract: There are many mathematical problems that involve tiling (covering) all the squares on a chessboard with tiles of various sizes. We'll be talking about these problems and then taking tiling to the next level, with new shapes and sizes of tiles covering all types of surfaces. Plan to roll up your sleeves and move those tiles around.

Question...

What is a  
mathematical  
tiling?

Question...

What shapes can  
you tile if you can  
only use 2 square  
tiles of  $2^n$  length?

Question...

Is it possible to  
tile a  $7 \times 7$  board  
with  $2 \times 1$  tiles?

Question...

How many  
pentominoes  
(shapes that use  
5 squares) are  
there?



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<https://math.boisestate.edu/circle/teachers/>