Proposal: Factorial

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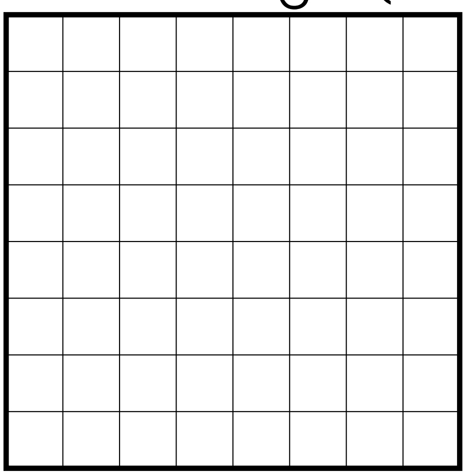
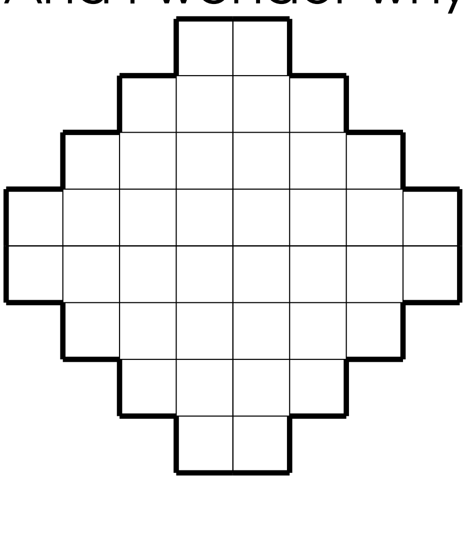
Some clever person turned the theory domino tilings into a fundamental object of mathematics and of nature. For a long time there were really two shapes being studied.

The rectangle (here an 8×8 square):



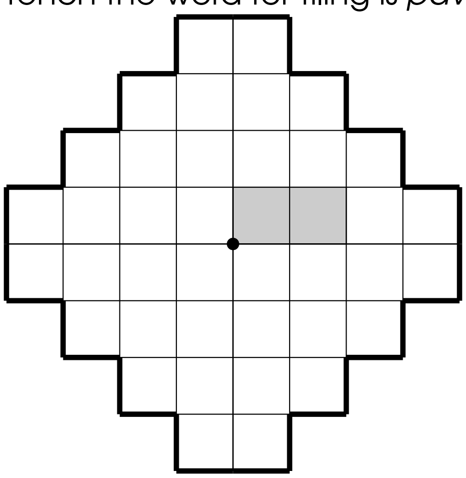
And I wonder why this particular shape is so essential:



Pathetic Tutorial:

```
\begin{tikzpicture}[scale=0.75]

\foreach \a in {0,...,3}{

\draw[line width=2] (\a  ,4-\a)--(\a+1, 4-\a  );
\draw[line width=2] (\a+1,4-\a)--(\a+1, 4-\a-1);

\draw (   \a, 4-\a)--(   \a, \a-4);
\draw (-1*\a, 4-\a)--(-1*\a, \a-4);

\draw ( 4-\a,    \a)--(\a-4,    \a);
\draw ( 4-\a, -1*\a)--(\a-4, -1*\a);

\def \b {-1}
\def \c { 1}

\draw[line width=2] (\b*\a     ,\c*4-\c*\a)--(\b*\a+\b*1, \c*4-\c*\a     );
\draw[line width=2] (\b*\a+\b*1,\c*4-\c*\a)--(\b*\a+\b*1, \c*4-\c*\a-\c*1);

\def \b { 1}
\def \c {-1}

\draw[line width=2] (\b*\a     ,\c*4-\c*\a)--(\b*\a+\b*1, \c*4-\c*\a     );
\draw[line width=2] (\b*\a+\b*1,\c*4-\c*\a)--(\b*\a+\b*1, \c*4-\c*\a-\c*1);

\def \b {-1}
\def \c {-1}

\draw[line width=2] (\b*\a     ,\c*4-\c*\a)--(\b*\a+\b*1, \c*4-\c*\a     );
\draw[line width=2] (\b*\a+\b*1,\c*4-\c*\a)--(\b*\a+\b*1, \c*4-\c*\a-\c*1);

}

\end{tikzpicture}
```

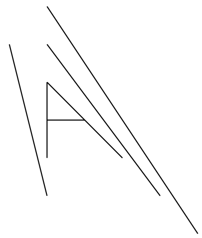
In French the word for tiling is *pavage* – so literally we are **paving** the shapes with dominoes.



References

(1) ...

The most amazing typo ever:



```
\begin{tikzpicture} [scale=0.5]
\foreach \a in {0,...,5}{
    \draw (\a, 5-\a)--(1, \a + 1);
}
\end{tikzpicture}
```