From "Penrose tiles" by Penrose:

1. A regular pentagon divides into 6 Penrose tiles that almost tile.

\[ 3 \left( \frac{3}{5} \pi \right) + \frac{1}{5} \pi = 2\pi \]


3. Stranger shapes appear; Penrose calls this a "Spiky Diamond".
4. At this stage, it seems like we may need to continue adding shapes as new tiles...

...but regular pentagons start to appear.

The Spikey Diamond Rule:

**This choice**

**Not this choice**

Choice is to match against this pentagon.
Penrose proposes matching rules giving rise to 6 tiles:

In GO's: 3's replaced by 1's, but have to be more careful about "spiky diamond rule"