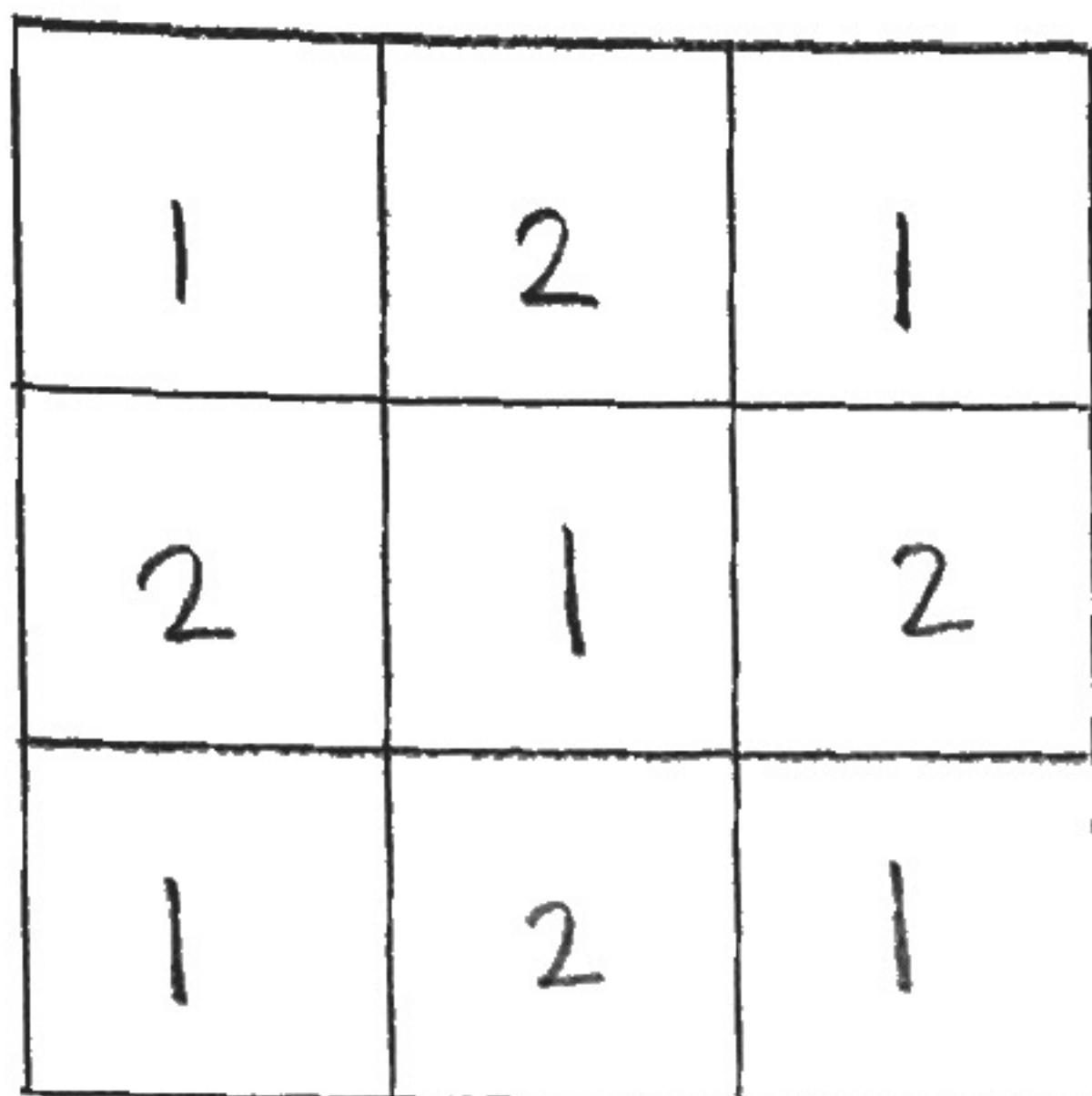


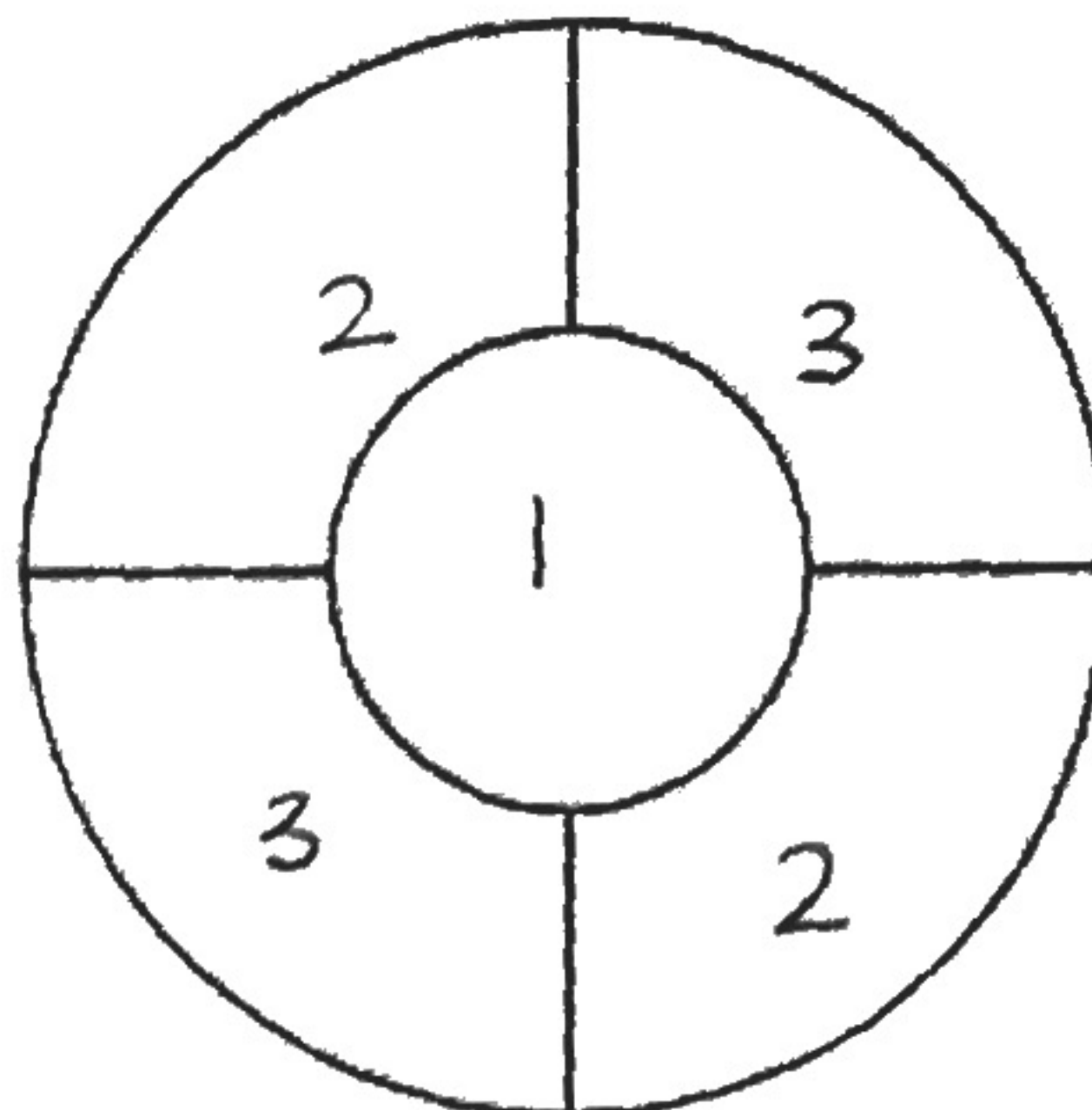
Two sections that share a common edge cannot be colored the same.
(vertex is ok)

1.



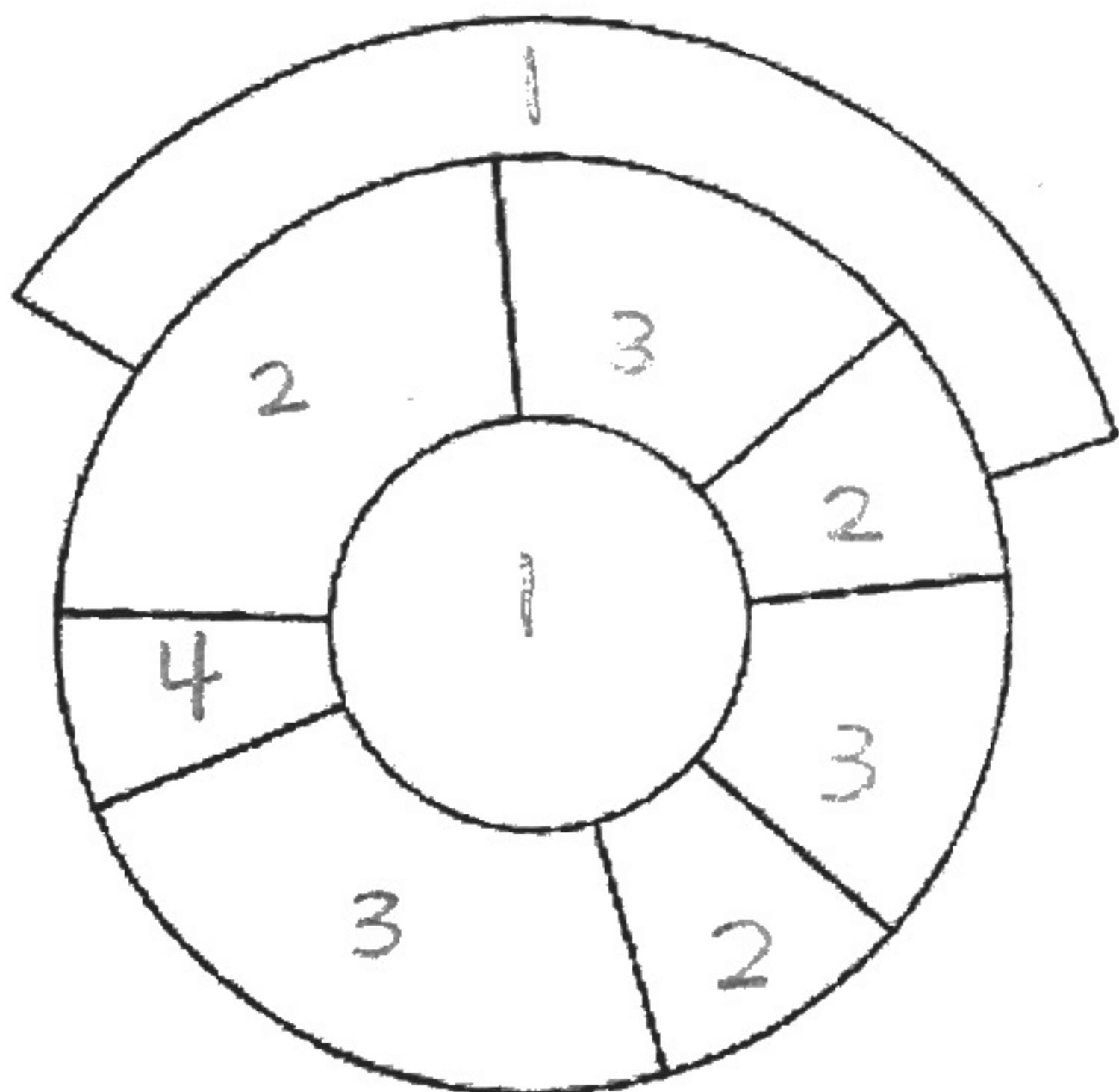
2 colors

2.



3 colors

3.



4 colors

4.

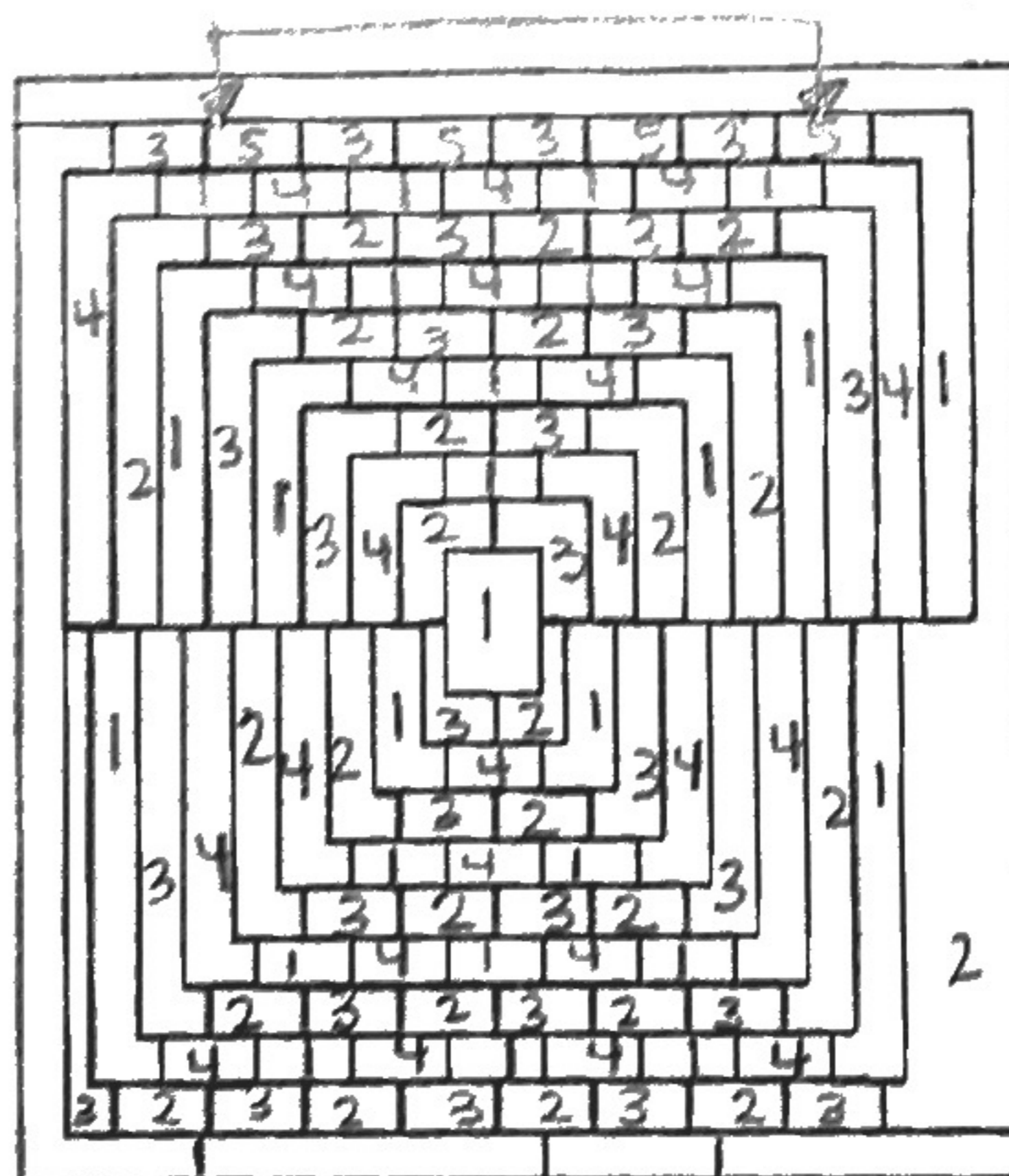




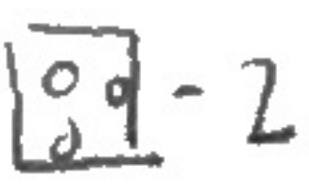

4 colors

5.



BONUS: Martin Gardner (1975) played an April Fool's joke by (incorrectly) claiming that the map of 110 regions illustrated below requires five colors and constitutes a counterexample to the four-color theorem. Can you refute his claim? *can't be 1, 2, 3, or 4 !!*



Extension:  -1  -3
 -2  -4

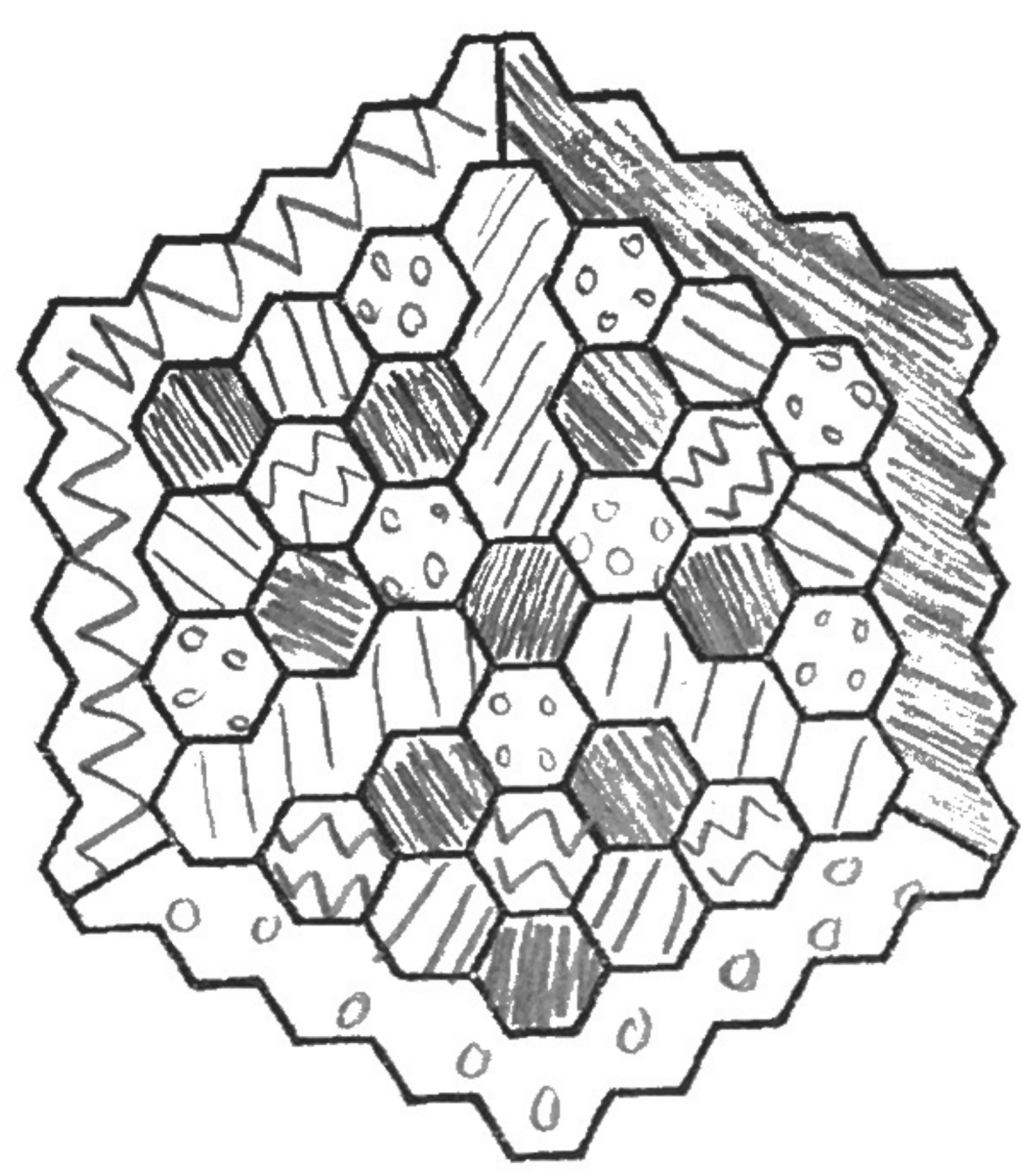


Figure 17
4 colors

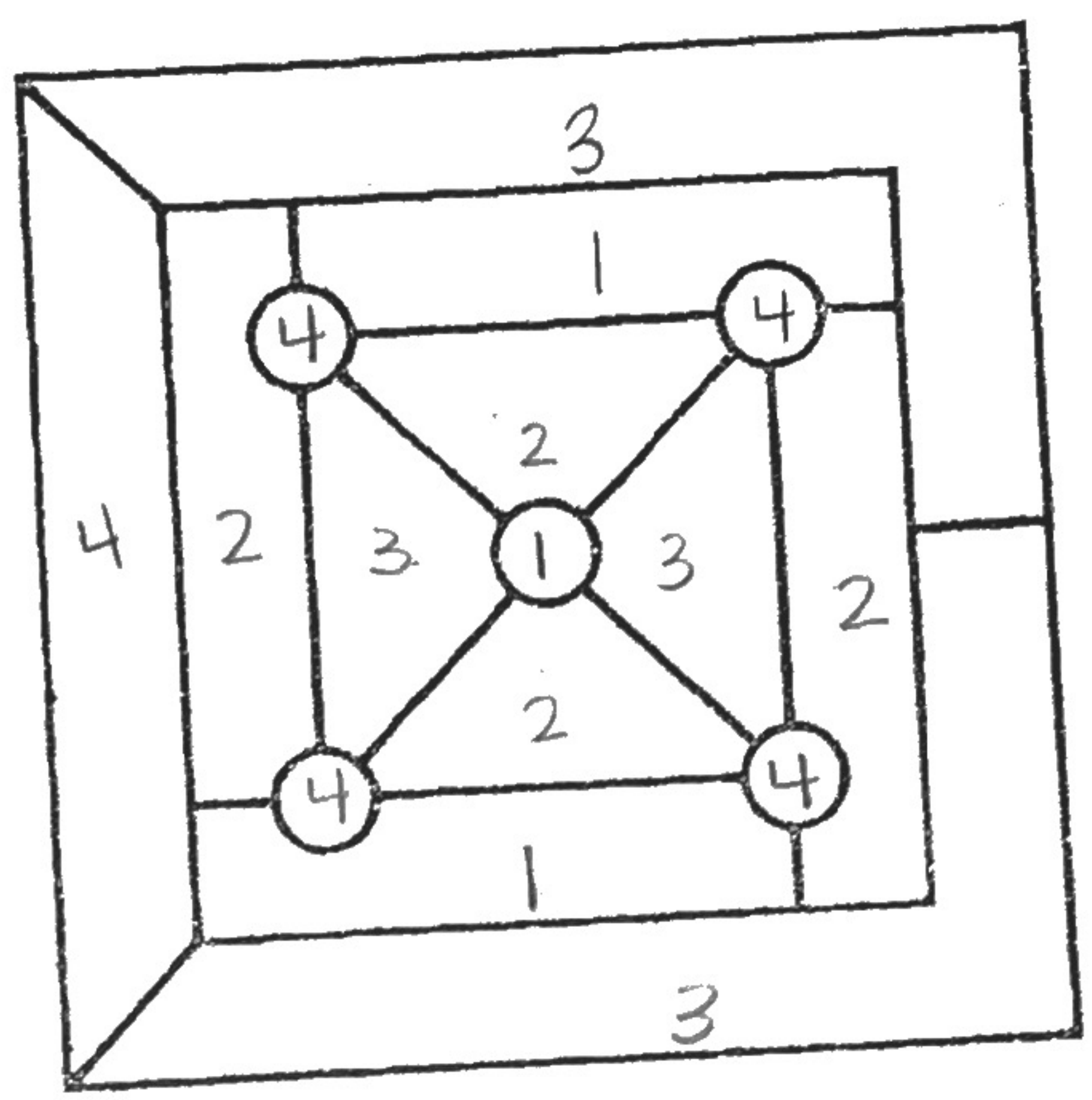


Figure 18
4 colors

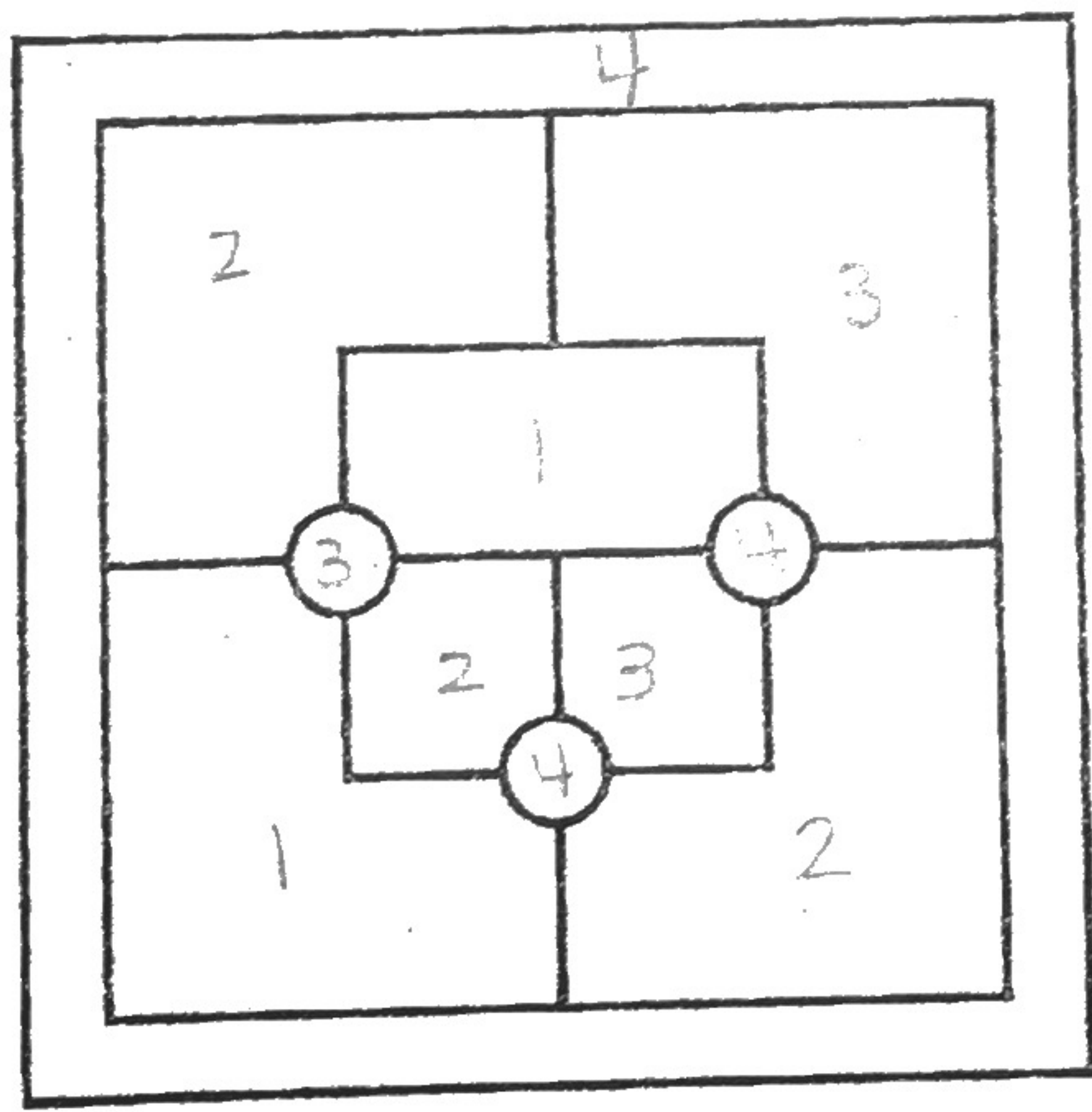


Figure 19
4 colors

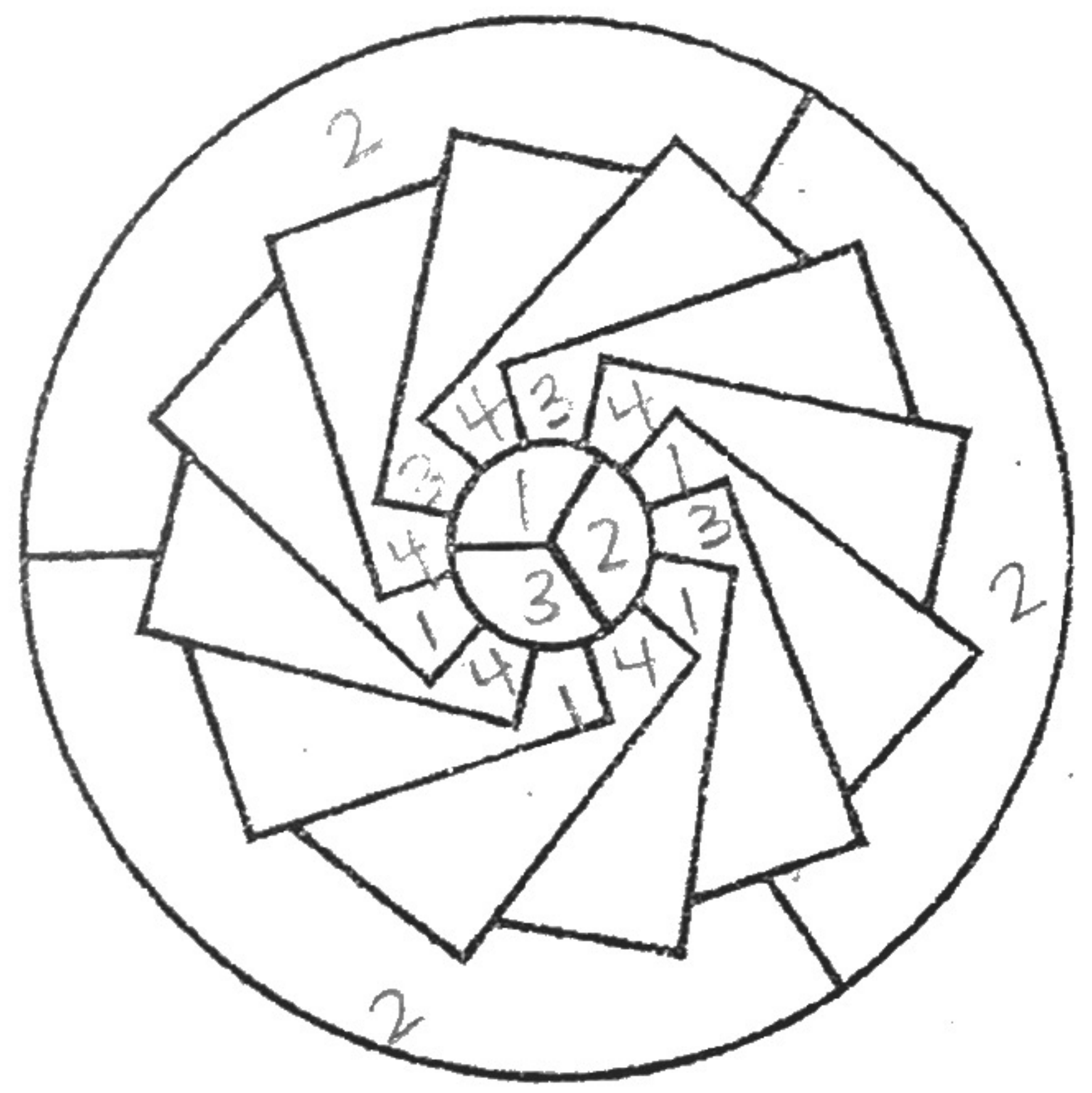


Figure 20
4 colors