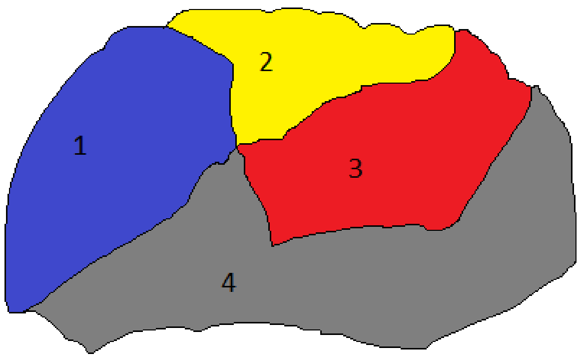
n+1 Colours Conjecture

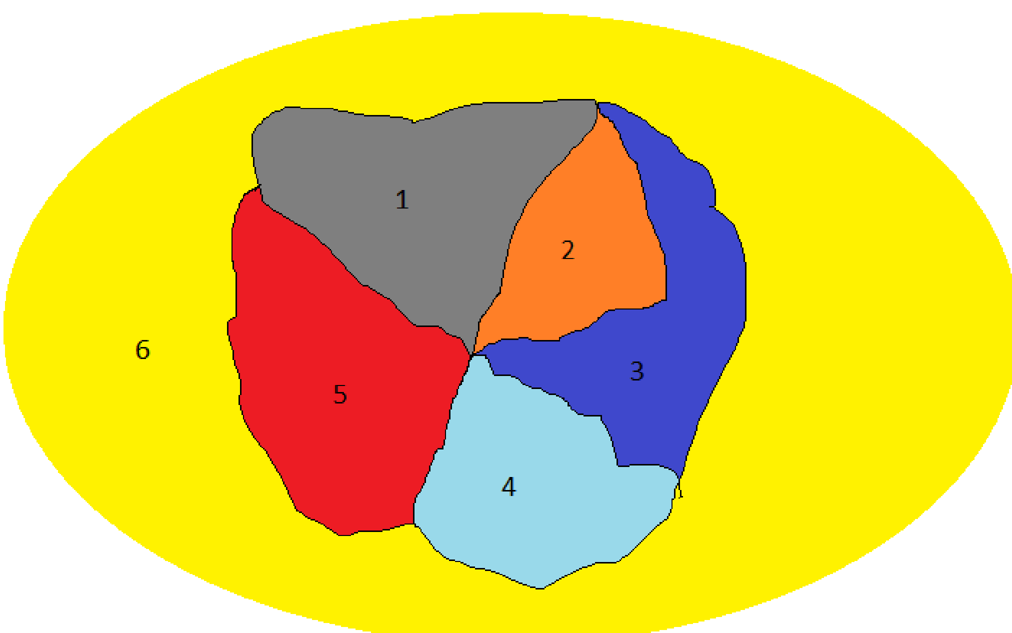
This is a map colouring problem similar to Guthrie's problem, all the same rules apply except for one: Countries that meet at a point are considered to be neighbouring countries.



If four colours meet at a point then they are all neighbours.

If n countries meet at a point then n countries are neighbouring at that point. Where
n is the vertex of greatest degree.

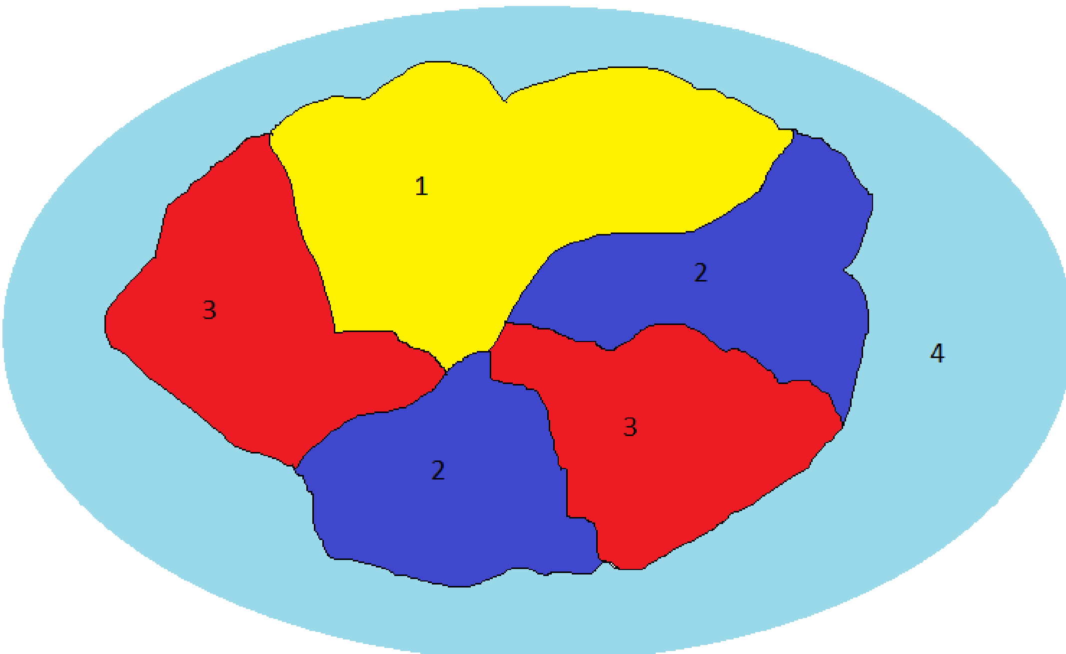
So I have conjectured that with this one change in the rules there are now n+1 colours needed to colour a map.



Where n = 5. Six colours are needed to colour a map.

Usually Only Three Countries At A Vertex Need To Be Considered:

For the practical purposes of map colouring only three countries meeting at a point need to be considered as each edge can be offset slightly, so only vertices of degree 3 need to be considered.



When edges are offset, a vertex of any degree n can be converted to several vertices of degree 3. Therefore for the purpose of colouring maps,

"Four colours will suffice."