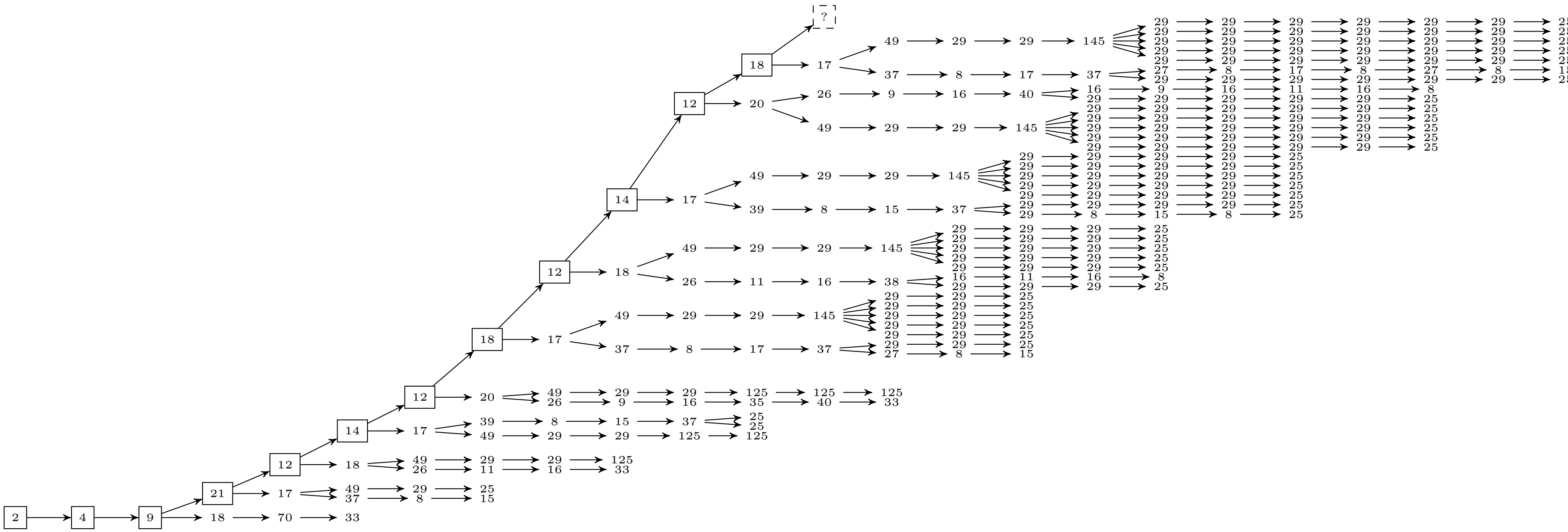
The tree $\mathcal{T}_5(5 \times 5)$ of 5-groups of coclass 1, computed in about 10 minutes. There are an enormous number of groups, so instead of giving each isomorphism class of group its own node, only those groups which have children get a node. Those nodes are labelled by the total number of children, even the barren children. This was computed with the widely available ANUPQ software, using techniques from around 1990, implemented in 2001. This has computed cohomology and orbit representatives for G of order 5^{25} without any trouble. Note the periodic structure of the branches is only just stabilizing.



Compare this to portion of the tree $\mathcal{T}_2(Alt(7))$ that could be computed. One still manages to get groups of order $7!/2 \cdot 2^{20}$, but this is barely two steps down the tree compared to 24 steps above. Here there are very few groups, so each group is given its own node labelled by the module isomorphism type of the last term of the lower central series of its 2-core, and where N denotes an initial nonsplit extension.