1 The Game on the Cylinder

The Cylinder graph $C_{m,n}$ is a rectangular arrangement of mn vertices in m rows and n columns much like the Grid, except that vertices on one boundary edge are joined to vertices on the opposite side.
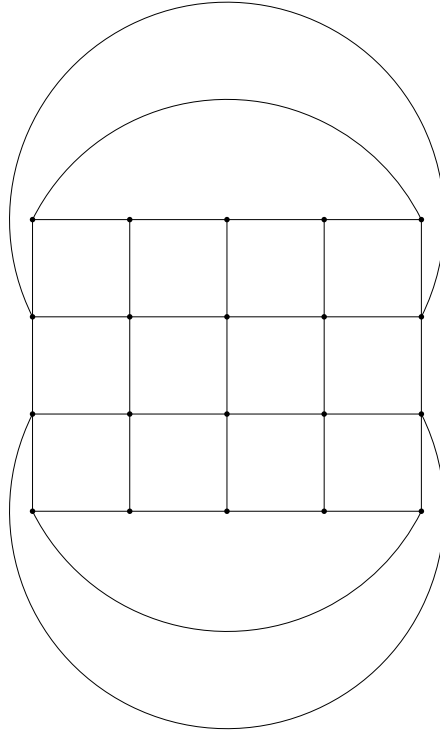

Figure 1: $C_{4,5}$

Note that this a planar graph for any m and n. Again, cylinder graph can be constructed by taking the Cartesian product of a cycle and a path $C_m \square P_n$.

We claim now that three zombies suffice to win on this family of graphs since they can execute a guarding strategy similar to the one detailed in the previous section.