1035-05-1763 Maria T. Belk* (mbelk@math.tamu.edu) and James M. Belk. Making Your House Safe from Zombie Attacks. Preliminary report.

We investigate the important question of how many zombies are required to catch and eat a person in an enclosed structure. We model the structure with a graph, and we assume that the person can move much faster than the zombies. The minimum number of zombies required to catch an intelligent person is called the zombie number of the graph. This is a variation on the "cops and robbers" game from graph theory, which can be used to define the treewidth of a graph. In this talk, we will discuss how the zombie number of a graph relates to the treewidth, and we will investigate forbidden minors for zombie number n. This talk will assume no prior knowledge of graph theory, and should be accessible to undergraduates. (Received September 20, 2007)