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“Model with mathematics” is an important standard for mathematical practice that can lead to deep inquiry. Providing teachers and students an opportunity to engage in mathematical activities that exemplify the standards for mathematical practice is a goal of many math circles. In this activity, rubber bands are tied together to make a bungee cord for a Barbie doll. The goal is to determine how many rubber bands will give a particular doll an exciting but non-fatal ride. Since this number depends on both the mass of the doll and the height of the drop, an opportunity for a multivariable investigation is at hand – a novel addition to the typical presentation of the problem. The session is especially engaging due to the visual nature of the problem and hands on data collection at the core. (Received September 23, 2017)