## Prelab 10

A 100 g Hot Wheels ${ }^{\mathrm{TM}}$ car traveling on a plane with an initial speed of $2 \mathrm{~m} / \mathrm{s}$ slows down to 1.5 $\mathrm{m} / \mathrm{s}$ after traveling 1 m . After traveling 2.1 m , the car runs into a spring with a force constant of $36 \mathrm{~N} / \mathrm{m}$. Construct a complete model of the car explaining the motion of the car and determine how far the spring will compress.

