

**8.54. Solve:** (a) At what speed does a 1500 kg car going over a hill with a radius of 200 m have a weight of 11,760 N?

(b) The weight is the normal force.

$$2940 \text{ N} = \frac{1500 \text{ kg } v^2}{200 \text{ m}} \Rightarrow v = 19.8 \text{ m/s}$$