Pendulum Demo

With no regard for his own personal safety your physics professor will risk being smashed by a bowling ball pendulum! If released from a height h, how far will the bowling ball reach when it returns?

$$\begin{split} K_{initial} + U_{initial} &= K_{final} + U_{final} \\ 0 + mgh_{initial} &= 0 + mgh_{final} \\ h_{initial} &= h_{final} \end{split}$$

