Class exercise

Simulation and Modeling (CSCI 3010U)

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Bouncing Ball

Develop a simulation of a 2D ball bouncing off of a slanted floor as shown below (Fig. 1).

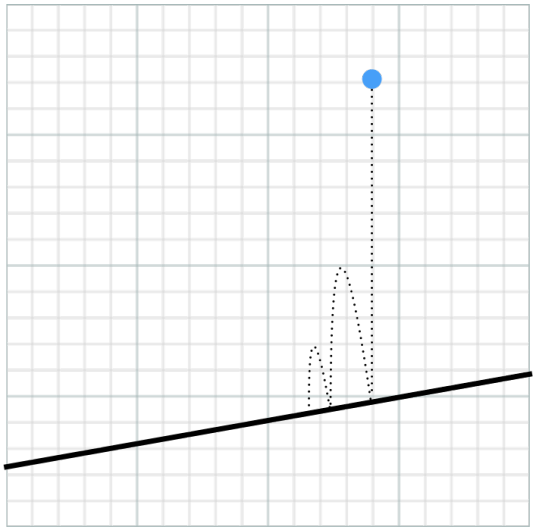

Figure 1: Bouncing ball off of a slanted floor

For this simulation we assume the following:

- The ball is initially released from height $h = 100$
- The coefficient of friction for the ball is $\gamma = 0.0001$
- The acceleration due to gravity is 9.8 m/s^2
- The floor is slanted at 10 degrees
- The ball is initially at rest

Submission

The exercise will be completed in class, and you do not need to submit anything. **Be prepared to show your work to the instructor**.