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Classical Probability Pr

University of Colorado

Time remaining:
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Please type your name in the form: Last, First:

Required.

NOTE!! Please type in your CU userid (that's the username you use to log in to CULearn. We do NOT want your password. It probably looks like your last name, perhaps with a few extra characters. Note that it is definitely NOT your numerical (9 digit) student ID!!

This script cannot "error check", you have to be sure you type it in correctly! Thanks

Please type your CU userid:

Required.

A ball rolls back and forth in a track with very steep sides. Joined by a steep ramp, two levels of equal length form the base of the track. A large number of photographs of the system are taken at random times. You may assume that the time spent on the steep portions is negligible. Assume there is no friction or energy loss in the system, and that the ball rolls smoothly, without bouncing, forever.



Q1: In a randomly selected photograph is the probability of the ball being on the higher level *greater than*, *less than*, or *equal to* the probability of the ball being on the lower level?

Required.

Explain your reasoning.

Required.

Q2: Is the average position of the ball *to the right of*, *to the left of*, or *exactly at the center of* the system?

Required.

b) Explain your reasoning:

Required.

Q3: Is the average speed of the ball *greater than*, *less than*, or *equal to one and a half times* the speed on the upper level?

Required.

b) Explain your reasoning:

Required.

Q4: What is the probability of finding a ball pictured exactly at the center of the lower level? Explain. If it is not possible to answer this question with the information given, describe the additional information that is needed.

Required.

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Submit responses

Questions or Comments?

Contact the 123 tutorial pretest coordinator at uwttl123@u.washington.edu

