

Lab 4: Conservation of Energy, Estimation and the Beginning of Rotation

More Estimation Practice

Estimate the following quantities. Aim to get results accurate to within an order of magnitude (i.e., within roughly a power of ten.)

1. How many people visit our campus from cruise ships every fall?
2. When you fly from New York to Los Angeles you go through three time zones. The distance of the journey is around 3000 miles. Use this information to estimate the radius of the earth.

Cartoon Physics Exercises

There are several short physics cartoon questions or puzzles. Work through the questions, and then see me and check your answers.

Pieces of Pie

Ask me or Cecily for the worksheet and we'll give you directions.

Rolling Stuff

Consider a hoop and a disk of equal mass and equal radius.

1. If you roll both down an incline, which will get to the bottom first, or will they get there at the same time?
2. Do the experiment. Tilt a table and roll the objects. Please be careful to catch the objects before they roll off the table.
3. What happened? How do you explain this?