

Physics Demosntrations On Line <http://www.ph.utexas.edu/~phy-demo/resources/resources.html>

Demos from Aubrun university
<http://www.physics.brown.edu/physics/demopages/Demo/solids/mechanic.html>

EGG AND SHEET

PURPOSE: To show impulse.

DESCRIPTION: Two students hold a large sheet. An egg is thrown into the sheet with great momentum but it does not break. Prove that the egg was not hard boiled by cracking it open into a plate.

EQUIPMENT: Sheet and egg.

BASKET BALL AND TENNIS BALL

PURPOSE: To show how an elastic collision that causes a multiplication of the velocity.

DESCRIPTION: The basketball is held touching and directly under the tennis ball. When the balls are released the basketball strikes the floor and transfers all the energy to the tennis ball. The tennis ball will bounce strongly with its velocity multiplied fourfold. The final height obtained will be nine times the original drop height.

EQUIPMENT: Tennis ball and basketball. Stored in mechanics with all the balls.



RACING BALL, HOOP, DISK 1Q10.40

PURPOSE: To show that a variety of round objects with the same mass and the same radius but different geometries will roll at rates proportional to their moment of inertia.

DESCRIPTION: Three objects are set to race down an incline. A solid sphere, a hollow disk and a solid disk all have the same mass and the same radius. Remove the meter stick to start the race. The race ends when the objects are stopped by a catcher placed at the end of the table.

EQUIPMENT: Ball, hoop and disk and Johnny Bench catcher are all in mechanics.

