

Direct Measurement Videos

Videos located at this URL: <http://serc.carleton.edu/dmvideos/videos.html>

Using frame-by-frame analysis, answer the questions for each lab based scenario.

1 Video: Cart Pushoff

a) How fast are the two girls going after the push?

b) How fast is the guy going after the push?

c) Is momentum conserved? (show)

2 Video: Hockey slap shot

a) How long is the puck in contact with the stick?

b) How fast is the puck moving after the slap shot?

c) What average force was exerted by the stick onto the puck?

3 Video: M&M colliding with a cart

a) How fast is the cart moving after the collision?

c) Use this information to calculate the speed of the M&M before the collision. (Conservation of Momentum)

4 Video: M&M colliding with pop can

a) How fast is the M&M moving after the collision?

b) How fast is the pop can moving after the collision?

c) Use this information to calculate the speed of the M&M before the collision. (Conservation of Momentum)