# Pushed book

Using your hand to exert a horizontal force, you push a physics textbook across the floor at a steady pace. The frictional force exerted by the floor on the book opposes its motion. Is the “push” force exerted by your hand greater than, less than, or equal to that frictional force?

## How would your (perhaps hypothetical) roommate, a humanities major, answer that question? Why?

## Now you answer the question, and explain your reasoning.

## Is there a way to reconcile the common-sense idea underlying your roommate’s reasoning with your own reasoning in this case? Or would you just have to tell the roommate to accept your reasoning because experiments support it? (*Hint:* How could your roommate refine his or her intuition to be consistent with your reasoning?)

# Why focus on mistakes?

In almost every tutorial, ILD, and homework that you’ve done, (including the question above!), we’ve had you spend a lot of time thinking about mistaken reasoning—your own mistakes and even other people’s mistakes. What do you see as the point, if any, of focusing on mistakes? (We’ve asked this before, but not on an assignment you handed in., and we want to see what you think.) Please be honest; write what *you* think, not what your professor thinks. You’ll get full credit for completing this question, no matter what you say.