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HOMEWORK 2

Suppose you are TA'ing an introductory mechanics class, and the topic for the week is work and energy (but before conservation of energy or potential energy). You are looking in the class textbook for instructive problems to go over in your section. You come across the following problem from the book *Physics for Scientists and Engineers* by Giancoli:

> How much work did the movers do (horizontally) pushing a 160-kg crate 10.3 m across a rough floor without acceleration, if the effective coefficient of friction was 0.50?

Questions for you (write out and turn in / be prepared to discuss in class):

- 1. What do you like about this problem?
- 2. What do you dislike about the problem?
- 3. Rewrite the problem (with the same basic setup) so that you think it will more effectively convey general problem-solving strategies that would be useful to students. You may also restructure the problem to make it multiple parts (e.g., parts a, b, and c, building on previous results).