

Homework #1: Laws of Physics

1. (15 pts) Pretend you don't know any physics and invent a "law of physics" from your daily experience.¹
 - (a) Explain what makes your invention a "law of physics".
 - (b) What is the "if" for your law?
 - (c) How would you falsify your law?
2. (10 pts) Ford breaks physics down into five "great theories". Which theory do you think is the most important for your day-to-day life? Explain your choice briefly. (There's no real right or wrong answer for this one; I just want to know what you think.)
3. (10 pts) Ford Q1.10, p. 12
4. (20 pts) Ford P1.1, p. 14. Note that the goal here is not to "do math", but to look for a pattern, express it in words, and then turn the words into an equation that will allow you to predict what will happen next. Look carefully at the table of numbers, and look for patterns.
5. (5 pts) Come in to my office hours and find out something about me that you didn't know before. Write it here.

Due: Monday, August 31, 5:00 pm

¹You may brainstorm with other students about this one, but make sure you (a) indicate on your answer sheet who your partners were, and (b) each of you should have a different law.