1. **Exam 2 starts today!**
   a. Exam ends Wed Oct 7 (late fee after Tues, 2 pm)
   b. Covers mainly Chapters 4 & 5, Homeworks 5-10
   c. Format: just like last exam
   d. 30 problems
   e. Time estimate: 2 hours 15 mins on average

2. **TA Exam review**
   a. Tonight, 7:30 – 9 pm.
   b. Place: W112 BNSN

* There isn’t really a HW 10
Experimental Problem
How much “horsepower” can a person generate?

Experiment: jumping from a stand-still → Volunteer needed!

Parameters:
- mass (kg) = ________
- measured height jumped (m) = ________
- measured “impulse time” (s) (time while legs are exerting force on ground) = ________

What was the work done by his/her body during the impulse time?

How much horsepower?
Clicker quiz
A car weighing 3000 N moves at a speed of 30 m/s on level ground. To do this, it pushes backwards on the road with a 5000 N force. What is the power output of the car engine?

a. 0 kW
b. 60 kW
c. 90 kW
d. 150 kW
e. 240 kW
→ Where does this power go? If the car moves at constant speed, it’s not used to accelerate the car.
From warmup

Ralph sees that his car's engine is rated at 100 hp. He thinks, "Cool, this means if I ever get in a tug of war with 90 horses, I will win!" Is he thinking about this correctly? What should you tell him?

“Pair share”– I am now ready to share my neighbor’s answer if called on.
  a. Yes
Bungee jumping: types of energy

![Bungee jumping image](image_credit: Wikipedia)

- Vertical distance from release
- Free fall region

*Image credit: Wikipedia*
More Exam Info

Things to study like last time
- HW
- Worked problems from class
- Old midterms/final exams, posted to website
- Conceptual questions from class (clicker quizzes, etc)
- Warmup questions
- Demo videos
- Textbook, to fill in gaps of things you didn’t get
- Also: a couple of problems from last exam will return

Also, be sure to go over the “Chapter Summaries of Mathematical Relations” for these chapters, if you haven’t been using it as you go along

Details of exam problems…
Requested Problems from Past Exams…