## Tuesday

brought to you by the letters M O T I O N

## housekeeping

You should be into MasteringPhysics
any issues?

You should be on Facebook
ISP220 Journalists: can we talk after class?
You should watch the course home page which is a Wordpress blog
I might say something important. Sign up for Feedburner
Dan is working on office hours.
Let's review where you should be...
chipbrock.org
Remember, notebooks out...please, no computers or phones

## "CAPER"* cards



The routine:
C

1. I ask a question with D responses
2. You fold your card and put it on your forehead
3. Then you defend your answer to the person next to you
4. I might then ask a second time
5. "I don't know?" ...show a blank square

Bring it to class or:
There's an app for that:
https://itunes.apple.com/us/app/capercard/id843445157?mt=8
https://play.google.com/store/apps/details?id=com.hexational.capercard\&hl=en

* "Center for Astronomy \& Physics Education Research"
reading quiz
demonstrations
some questions for all of us


## answer, defend



Clem skis off a cliff and knocks his cell phone off the edge, which was just sitting there. Somehow all of the air has disappeared at Jackson Hole.

Clem gets to the ground before his phone

B Clem \& phone get to the ground at the same time

C
Clem gets to the ground after his phone

D The phone doesn't fall since there are no bars
answer, defend

answer, defend


## answer, defend



## answer, defend


project
you'll need an approximate straight-edge
you'll need a stop watch/phone thingy

## a trip, man.

starts moving
VI - must commit
VR, or "rotate"


## A330-300 Copenhagen-Chicago Part 2 Takeoff

mmmpetersen + Subscribe 99 videos

Runway is 9,000 feet long.

After some time, it reaches " $v 1$ " and " $v R$ "
measure time from starting to "rotate"
you'll hear:
"100 knots"...computer (~115mph)
"V1"...computer
"rotate"...human



B
C
D

