Thursday, January 10

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

Joe Bonamassa

housekeeping

You should be into MasteringPhysics

You should be on Facebook

You should have taken LON-CAPA out for a spin

indeed, done the Lesson 4 stuff

any issues? See me after class!

See me if you didn't see your name on the GRL code-list

You should watch the course home page which is a Wordpress blog

Did you sign up for Feedburner?

Let's review where you should be... `chipbrock.org`

Try the welcome videos again!

`https://qstbb.pa.msu.edu/storage/QS&BB2019/videos_2019/`

more

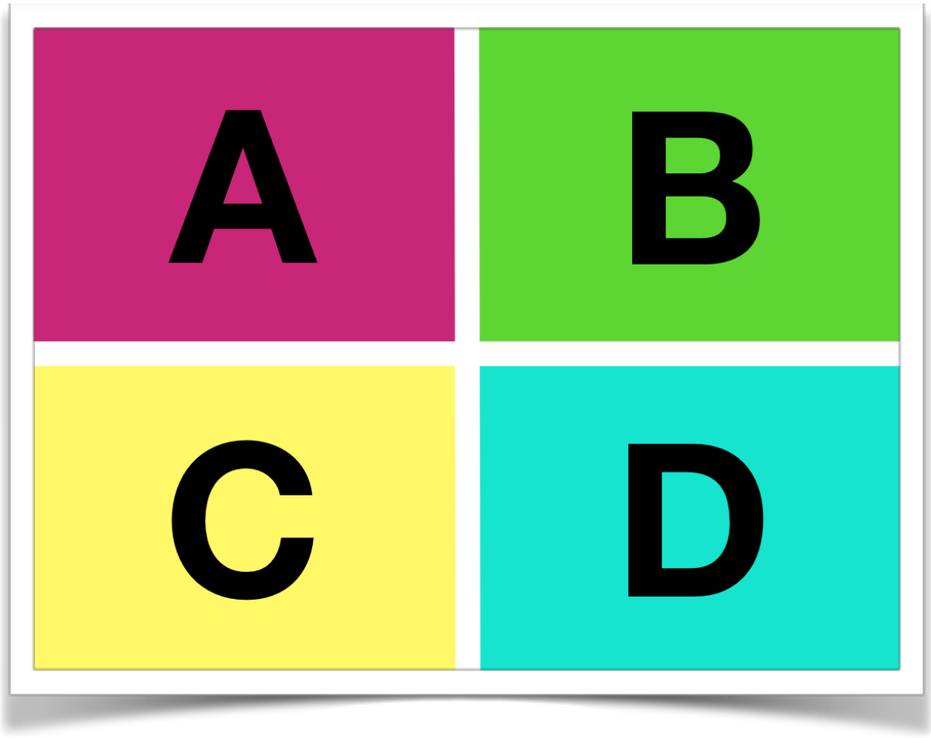
housekeeping

Athletes

Honors Students

now we’re done.

"CAPER"* cards



A

B

C

D

The routine:

1. I ask a question with 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

a word.

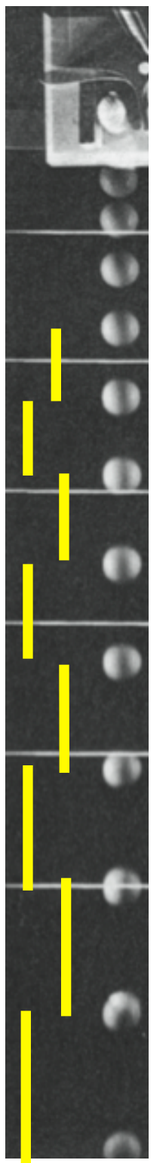
demonstrations

drop

shoot, v

$x = vt$

strobe shows increasing distance with time



$$y = \frac{1}{2}gt^2$$

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.

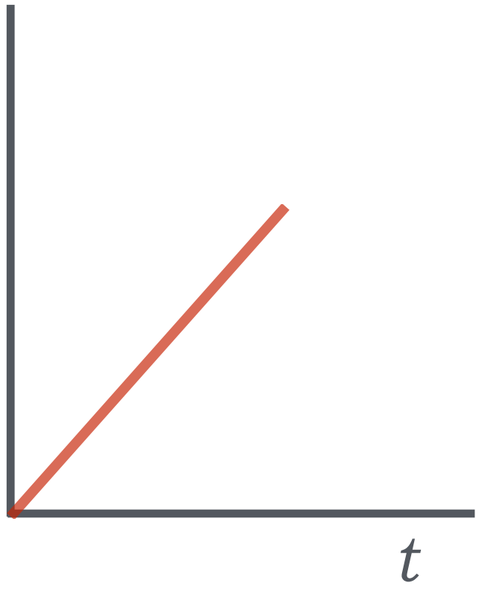
A Clem gets to the ground before his phone

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



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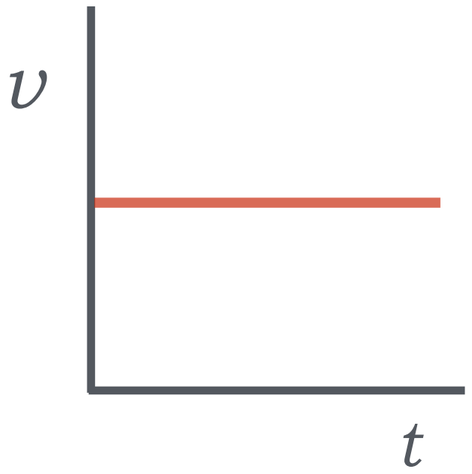

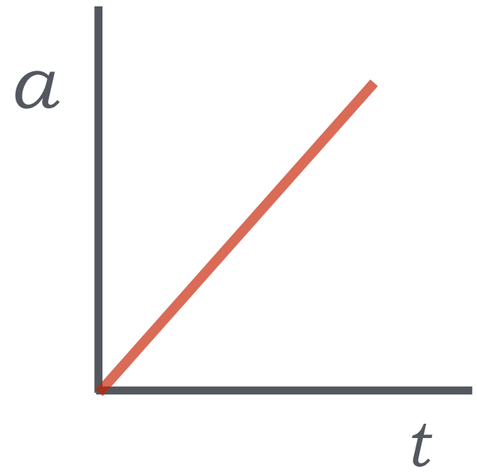

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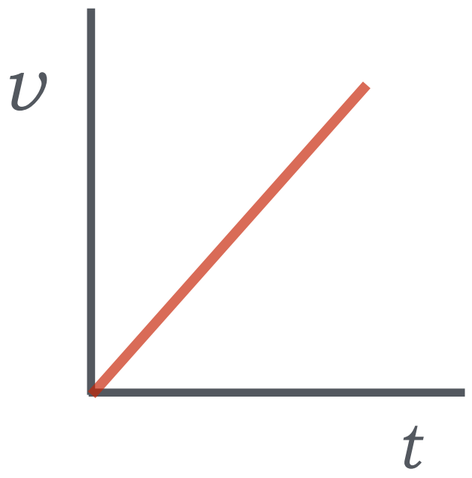

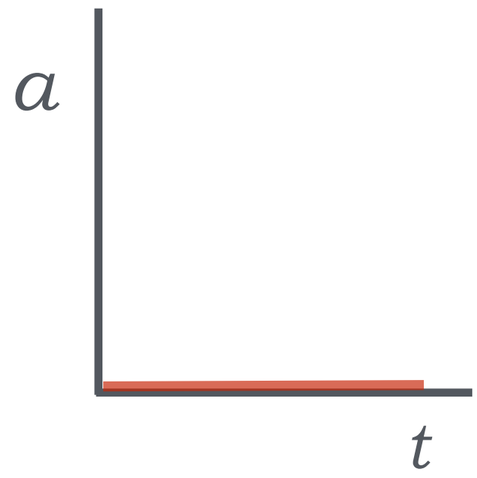

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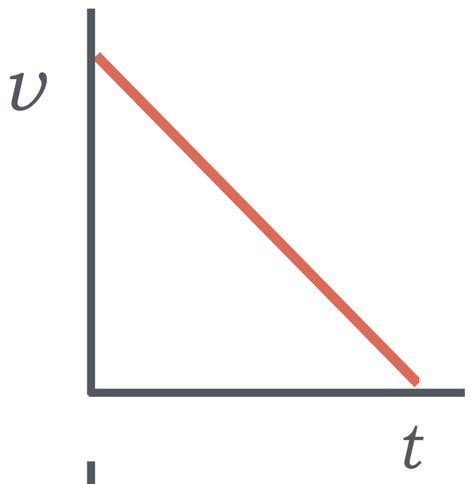

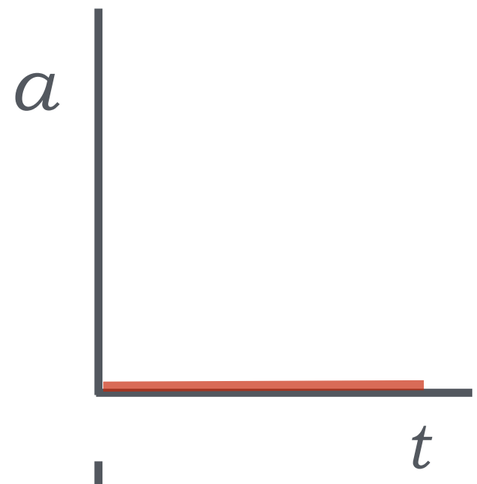

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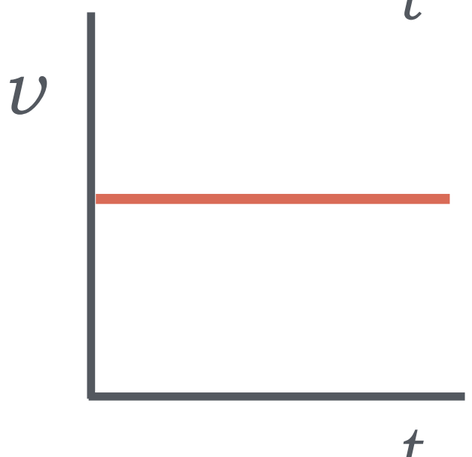
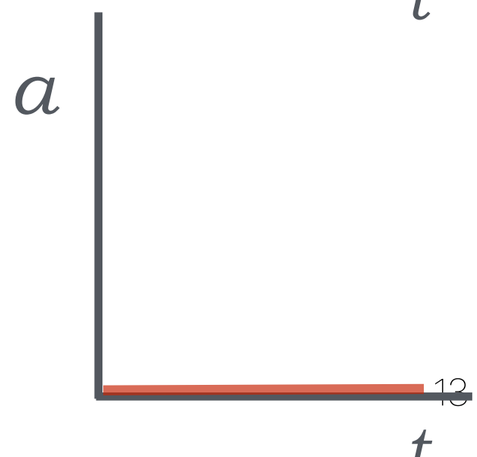
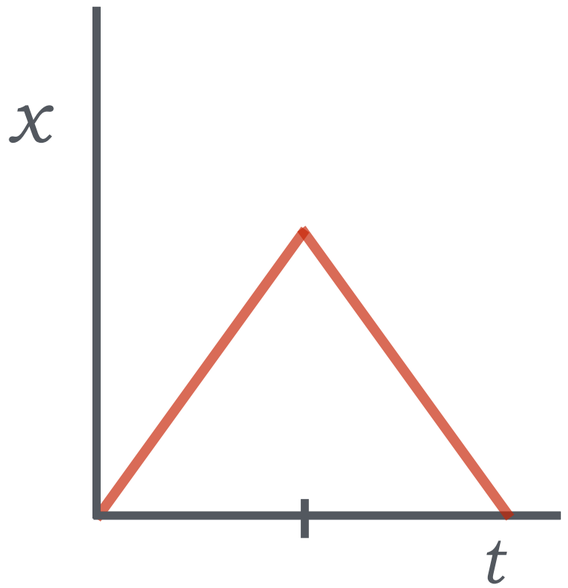




answer, defend



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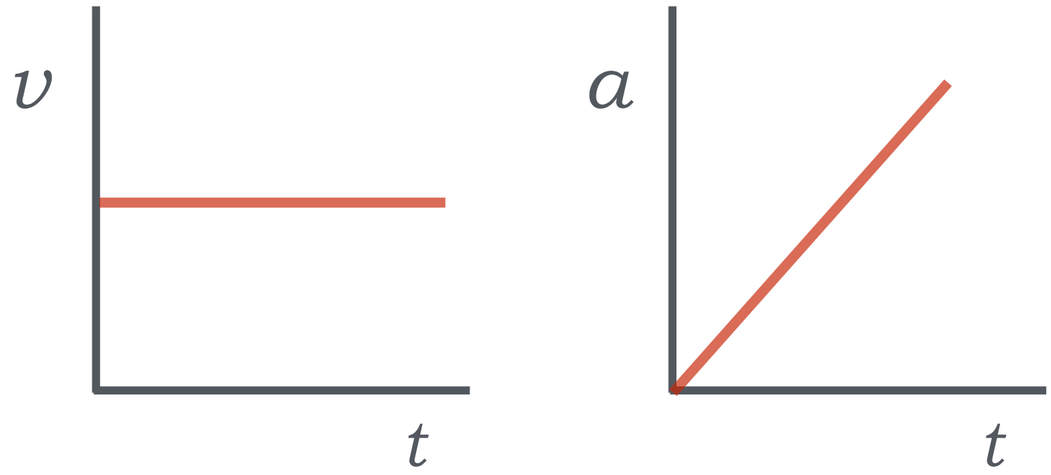

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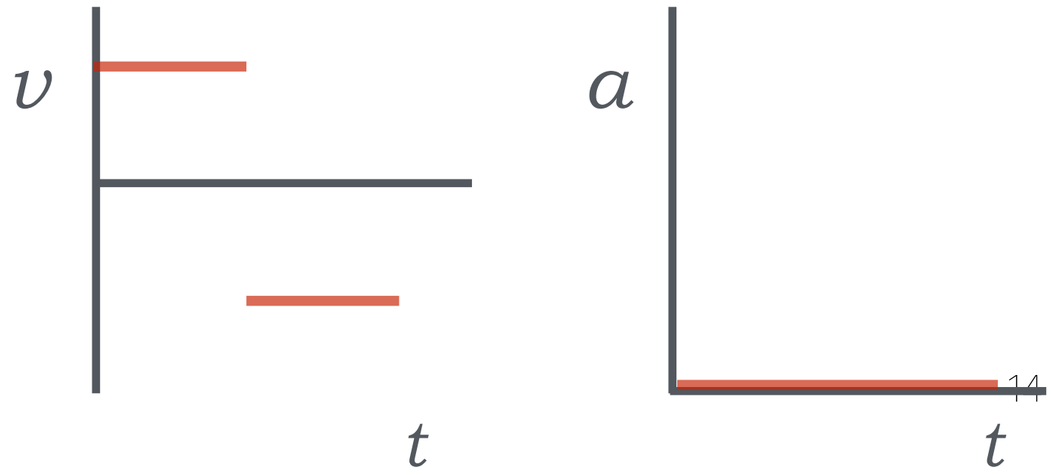

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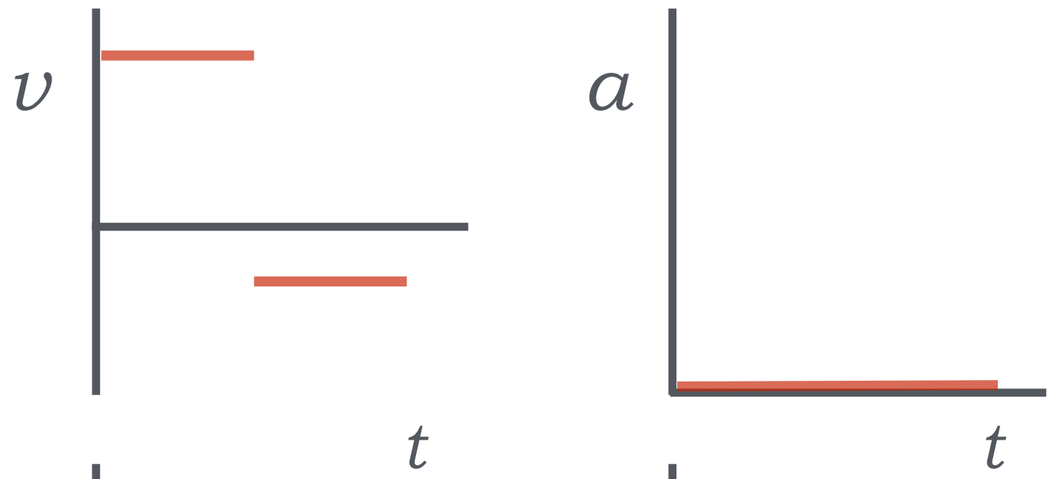

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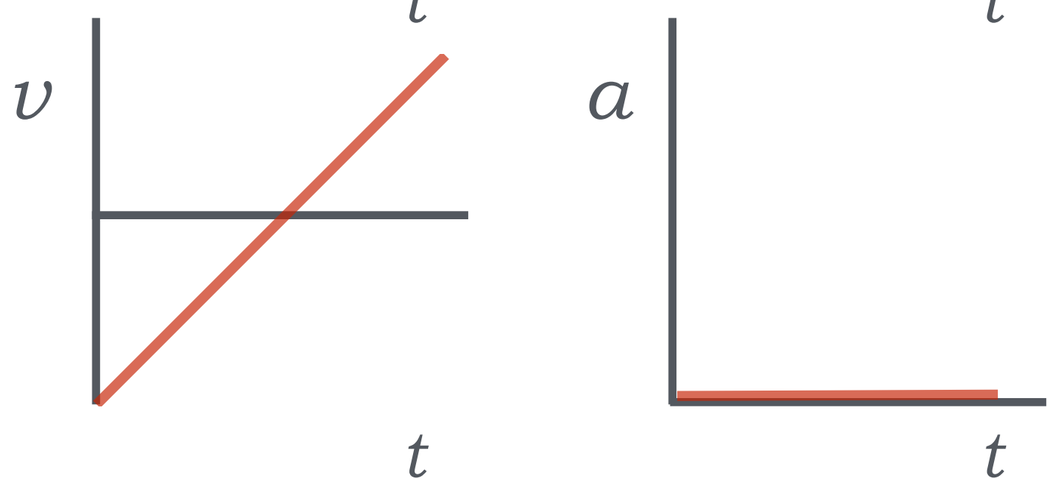

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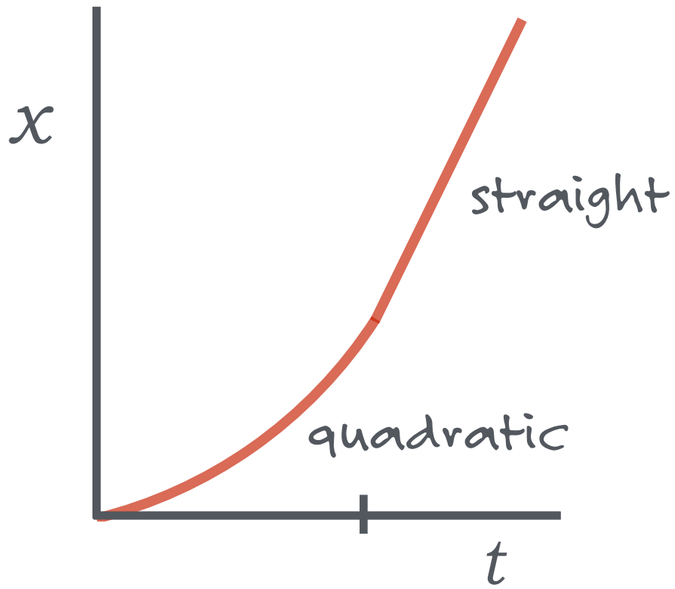

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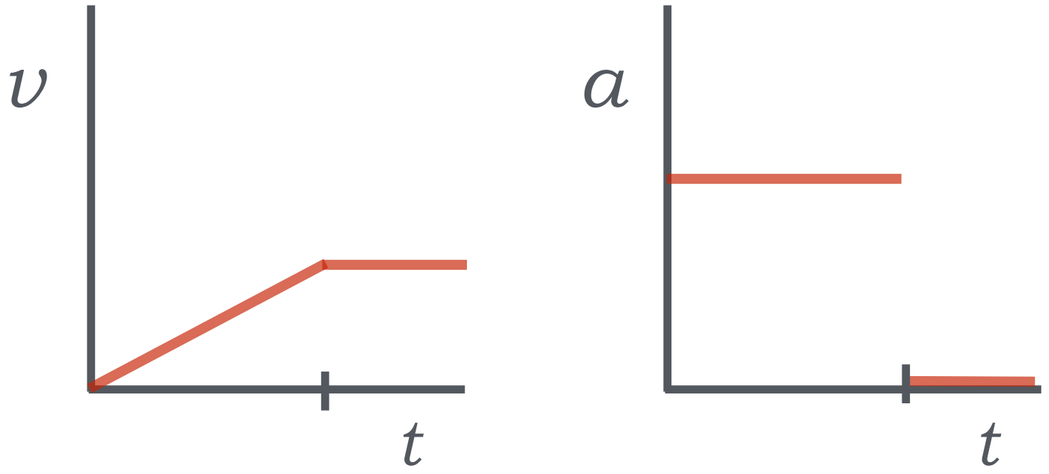

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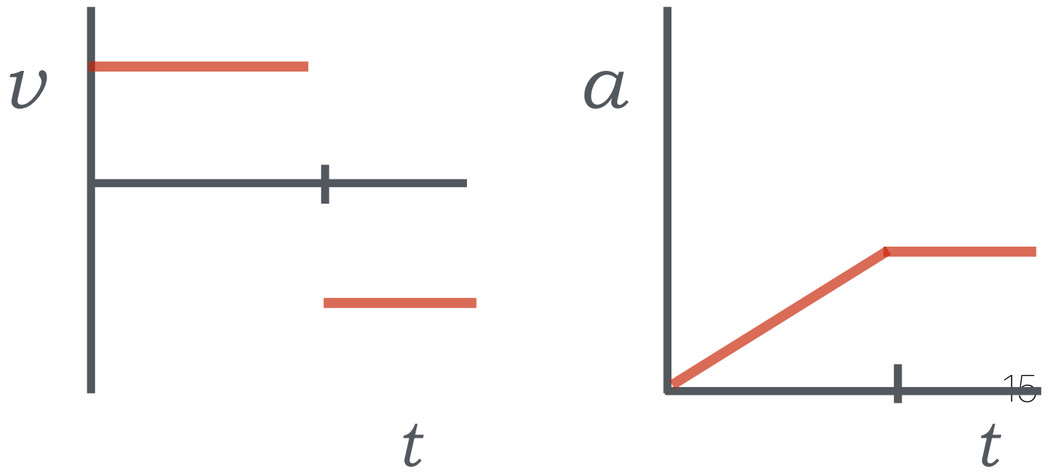

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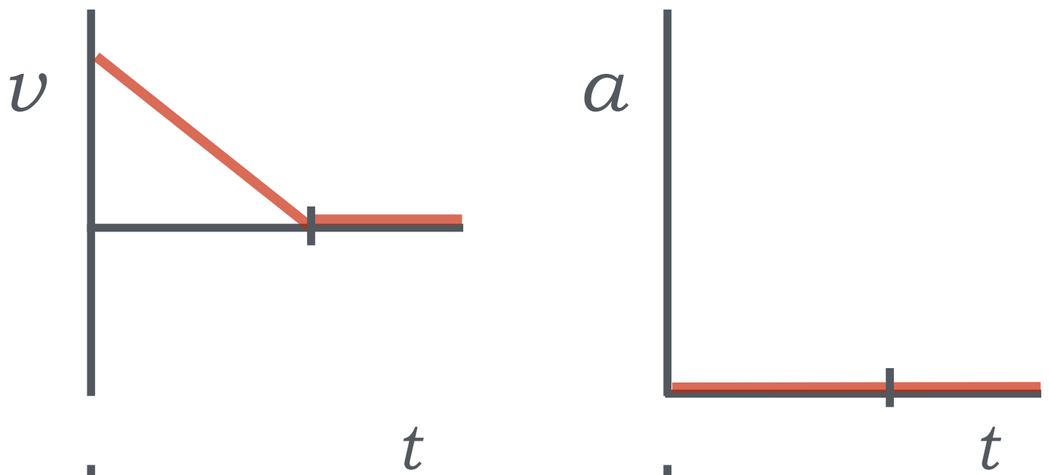

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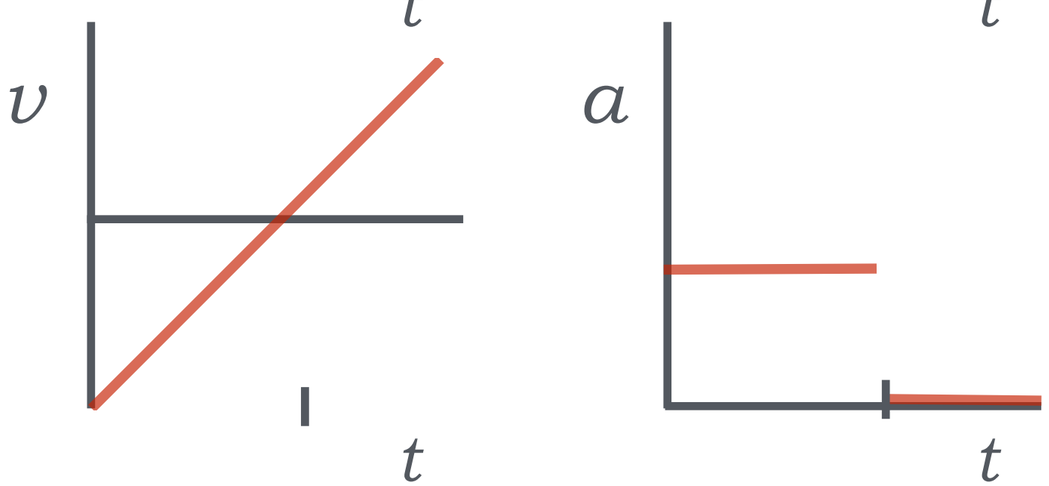

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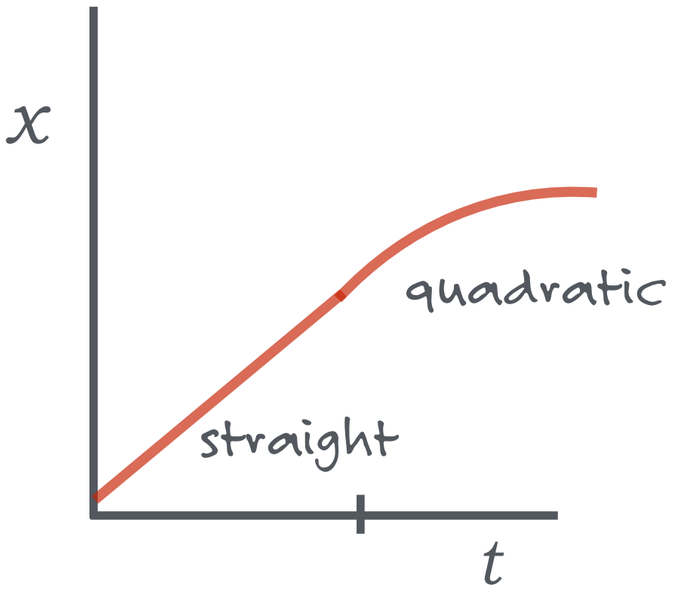

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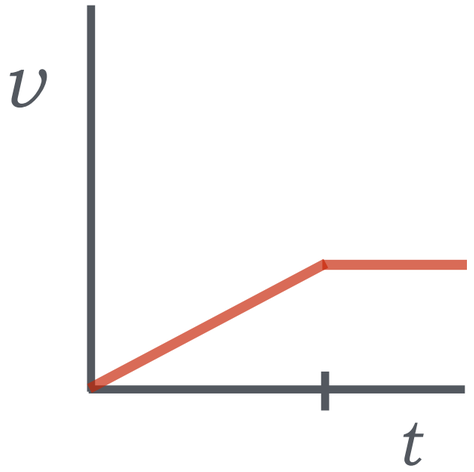

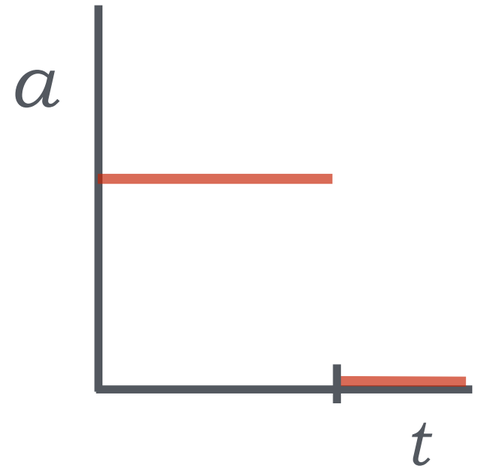

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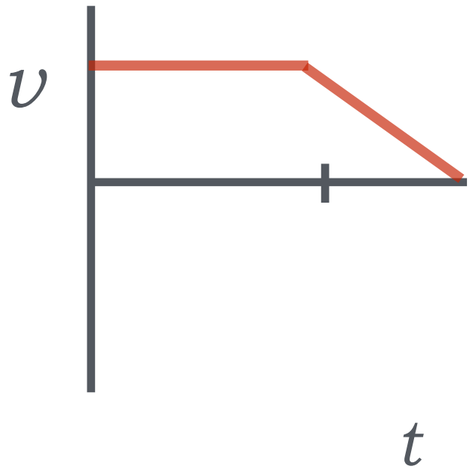

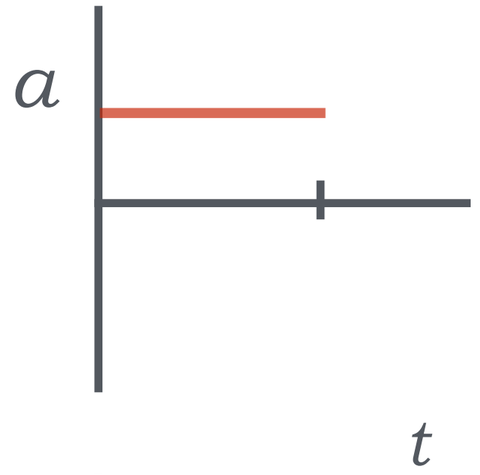

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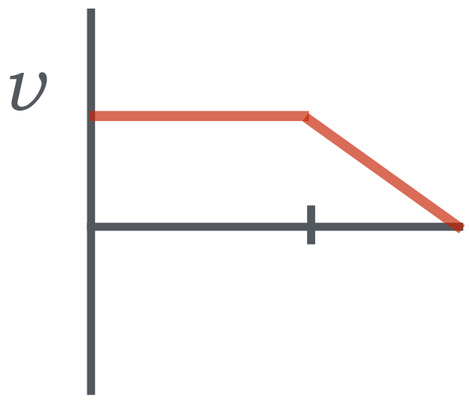

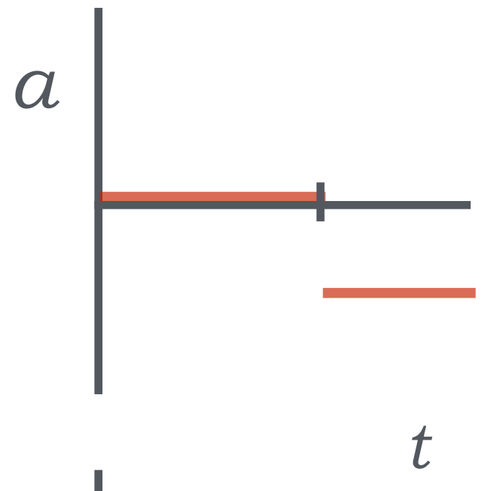

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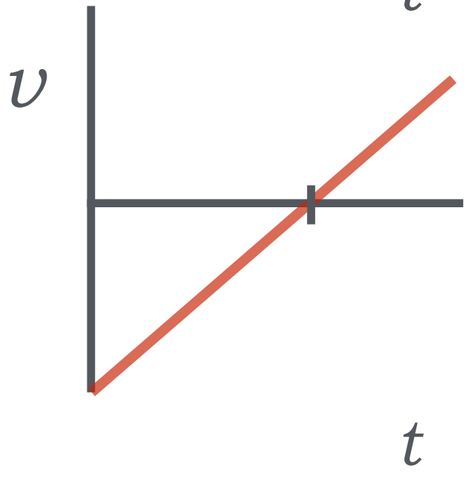
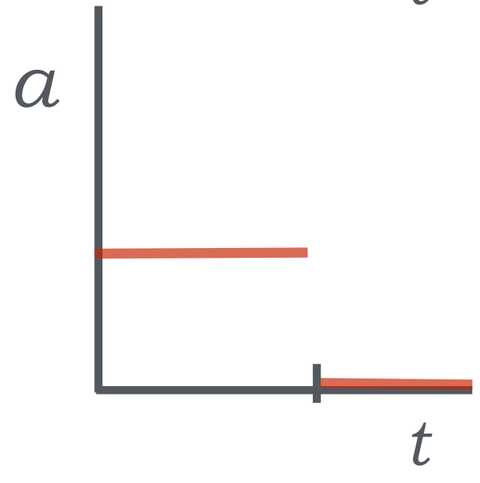




project

you’ll need an approximate straight-edge

you’ll need a stop watch/phone thingy

a trip, man.

starts moving

V1 - must commit

VR, or "rotate"

Runway is 9,000 feet long.

After some time, it reaches "v1" and "vR"

measure time from starting to "rotate"

you'll hear:

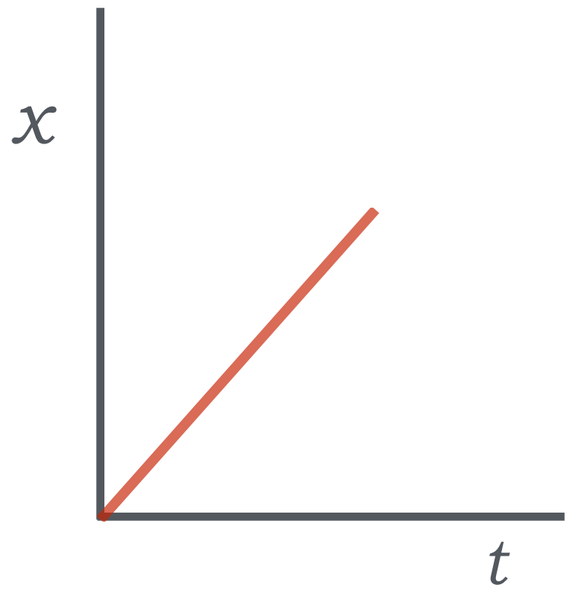
"100 knots"...computer (~115mph)

"V1"...computer

"rotate"...human

Measure the number of seconds from start to "rotate":

https://qstbb.pa.msu.edu/storage/QS&BB2019/videos_2019/Google%20ChromeScreenSnapz001.mov



A

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