mecha guinea pig go go go

about the class

goals

- help you become the best programmer you can be
  - CS136 is the foundation for all the programming you will do after!
- have fun
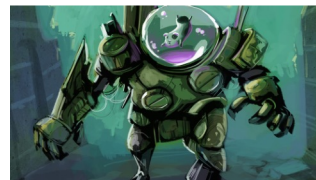 - let's code up some cool stuff from scratch!

what to expect

- the **lectures** should make sense (especially on Monday)
  - if something doesn't make sense, raise your hand!

- the **homework** should take 10-15+ hours per week
  - if it's too hard, let's chat!--we will make a plan for success
    - *"We don't all have the same floor or ceiling, but we each have a lot more in us than we know, and when it comes to [programming], everyone can achieve feats they once thought impossible. –David Goggins*
  - if it's too easy, do the extra credit!
    - *"We're either getting better or we're getting worse." –David Goggins*

- the **exams** should be challenging yet also completely unsurprising

week at a glance

- 👾 Monday will be a lecture
  - often, i will explain a data structure
- 🧑‍🏫 Wednesday will be a tutorial
  - often, we will implement a data structure together, step by step (bring your laptop!)
- 🧑‍🔬 Thursday is lab
  - you work on the homework (definitely bring your laptop!)
- 🧙 ✨ Friday is time for Kahoot! and advanced topics
  - Kahoot's are meant to prepare you for the exams' shorter questions
  - advanced topics will not be on the exams, though understanding them may certainly help you on the exams

are you guinea pigs?

- yes
  - however
    - 1) guinea pigs are awesome, and
    - 2) i am very excited to teach this course 🙂 👍

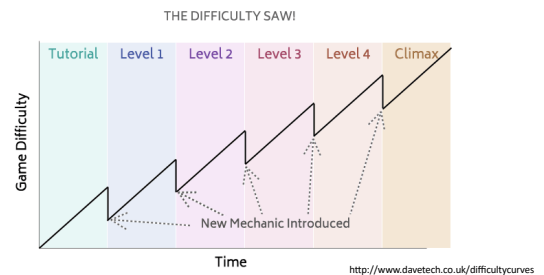# difficulty, inclusivity, and programming and a lifetime of coding

how different are our backgrounds?

- let's find out!
  - what is an ArrayList?
  - what does *mens rea* mean?
  - what is the integral of x^2 + 5x?
  - what happened in Guatemala in 1954?
  - what does it mean to "shower" in juggling?
  - what is the Nash Equilibium of the Prisoners' Dilemna?
  - consider two cups that are just about to overflow with water. one also has some ice floating in it. which weighs more? why?
- 🗣 is there anyone here who knows the answer to all the questions?
- 🗣 is there any question that *no one* knows the answer to?

our backgrounds are very different…

- …but my goal is for this class to be fun and accessible for everyone here
  - each week of lecture will follow an easy-to-hard difficulty ramp
    - Monday is easier
    - Wednesday is harder
    - Friday is hardest
  - each homework will follow an easy-to-hard difficulty ramp
    - B is easier
    - A is harder
    - S is hardest

the course as a whole should follow a saw

THE DIFFICULTY SAW!

http://www.davetech.co.uk/difficultycurves

there is no finish line

- it's 10+ years since i took the equivalent of CS 136
  - i still code almost every day
  - i still learn something new almost every day
  - i still feel like i have no idea what i'm doing almost every day

tutorial 0