

Disclaimer: It is **nearly impossible** to compute your grade at this point in the class. There are still the majority homework points and the final exam points to consider. This means that your grade could fluctuate a lot. Use this guide as a way to play with what you need to earn on the homework and the final exam to get the grade you want.

Your grade is made up of 4 parts:

- Homework (50%)
- Midterm (20%)
- Final (30%)
- Extra Credit (On top. Small enough effect on your grade it's not worth considering when thinking of what you need to do to get X grade)

At the end of the quarter, we do the computation:

$$(\text{Homework}\% * 0.5) + (\text{Midterm}\% * 0.2) + (\text{Final}\% * 0.3)$$

This means that if you got 100% on everything, at the end of the quarter you would have:

$$(1.0 * 0.5) + (1.0 * 0.2) + (1.0 * 0.3) = 1.0$$

which means you got 100% in the class overall.

If you got 100% on everything, except you got 90% on the Final exam, you would have:

$$(1.0 * 0.5) + (1.0 * 0.2) + (0.9 * 0.3) = 0.97$$

which means you got 97% overall in the class.

Right now, you know how much you've been getting on homework assignments so you can calculate a rough percentage for that number. Keep in mind that you've only gotten grades back on HW1 and HW2, so the majority of the HW points are yet to come. This could be a good or bad thing depending on what you've earned so far and what you earn for the rest of the quarter. Right now you also know how much you got on the midterm exam. That percentage gets multiplied by 0.2 to give you a number between 0 and 0.2. The midterm scores are not curved down.

You don't know your final exam grade yet, but you can estimate it from your midterm exam score and play with what happens to your grade given different final exam outcomes. Look carefully at how much time you expect to have for studying at the end of the quarter, and keep in mind that the final exam is a different style exam than the midterm. The midterm exam was a breadth-based exam with a time pressure and lots of mechanical questions on lots of topics. The final exam will be a depth-based exam with less topics but more in-depth coding questions to demonstrate mastery.

The last piece you need is: how does a percentage map to a grade point? This is the tricky piece. I'm likely to make the final exam difficult to get an average that is not too high. That way I can adjust the exam grades up and make the overall average in the class reasonable. A good guide to use as a worst case scenario is the 14X cut points. I can guarantee that our "curve" will be the 14X "curve" at the worst. Those cut points are as follows:

90%: at least 3.5

80%: at least 2.5

70%: at least 1.5

85%: at least 3.0

75%: at least 2.0

60%: at least 0.7