## How to estimate my grade in MATH 2164?

This handout is supposed to help you estimate your grade in MATH 2164, by providing a sample calculation. The rules how to compute the course grade are detailed in the syllabus. Keep in mind, you need to have at least $90 \%$ overall to get an "A", at least $75 \%$ to get a "B", at least $60 \%$ overall to get a "C", and at least $50 \%$ overall to get a "D". Just replace the numbers below with your numbers provided on Canvas, and do the math!

Suppose Claire had 2 absences (this would show up on canvas as $6 / 8$ ), her score on the written homework was $70 / 85$, on webwork it was $98 / 125$ and her test scores were 66 and 77 .

Each unexcused absence decreases Claire's course grade by one percent point, up to five points. By having 2 absences, Claire earns $3 \%$ for attendance instead of $5 \%$. If she had 5 to 7 absences she would earn $0 \%$, and with 8 absences or more she would get an automatic " F ". The display on Canvas is set up in a way that it shows $0 / 8$ or a negative number, when someone had failed the class due to 8 or more absences, but if the score is $1 / 8,2 / 8$ or $3 / 8$, this means 7,6 , or 5 absences, and they are all worth an attendance score of $0 \%$.

Next we compute the homework score. The denominators 85 and 125 on the written homework and on Webwork are the total number of points that were available. So, at this point, there were $85+125=210$ points available, and she earned $70+98=168$ points. Claire's performance on the homework is thus $168 / 210=80 \%$. The test performances are easier to compute: 66 points is $66 \%$ and 77 points is $77 \%$.

According to the syllabus, the weight of the homework is $18 \%$, the weight of each test is $22 \%$ and the weight of the final exam is $33 \%$. Assuming Claire scores $x$ percent on the final, her overall performance will be

$$
3 \%+0.18 \cdot 80 \%+0.22 \cdot(66 \%+77 \%)+0.33 \cdot x \%=48.86 \%+0.33 \cdot x \%
$$

If Claire only wants a " $D$," the solution of

$$
48.86 \%+0.33 \cdot x \% \geq 50 \%
$$

is $x \geq 3.45 \%$, so Claire only needs to sign her name and answer one question correctly. If she wants a "C," the solution of

$$
48.86 \%+0.33 \cdot x \% \geq 60 \%
$$

is $x \geq 33.76 \%$. Claire can still get even an " $F$ " on the final, but she must answer abut one third of the questions correctly. If she wants a "B," the solution of

$$
48.86 \%+0.33 \cdot x \% \geq 75 \%
$$

is $x \geq 79.21 \%$, she needs to earn a strong " B " on the final. Finally, if she wants an "A", the solution of

$$
48.86 \%+0.33 \cdot x \% \geq 90 \%
$$

is $x \geq 124.66 \%$, which is not possible to get, unfortunatley. Just like on the tests, there will be a possibility of scoring $105 \%$ on the final, but not more.

