

December 3, 2020

MAC 2311  
Quiz 12: Last one!

Remember to show all of your work.

**Problem 1.** Determine the expression for  $f(x)$  given the following information:

- $f''(x) = 30x + 32 - e^x$
- $f(0) = 0$
- $f(1) = 25 - e$

**Problem 2.** Find an approximation of the area under the graph of  $f(x) = x^2 + 1$  on the interval  $[1, 13]$  using

- (a) right endpoints with  $n = 4$
- (b) midpoints with  $n = 3$

Good luck on all of your finals! Thanks for a great semester :)