

MAT 17A Winter 2026  
Homework 7

**Due before 11:00 AM on Wednesday, March 11**

*Please write the homework solutions in connected sentences and explain your work. Mark the answers to each question. Scan or take pictures of your homework and upload it to Gradescope before due time.*

In all problems:

- Find the domain, vertical and horizontal asymptotes
- Find the intervals where the function is increasing or decreasing
- Find all local maximums and minimums
- Find the intervals where the function is concave up or down, and the inflection points
- Graph the function using this information

1.  $f(x) = 5 - 2x - x^2$ .
2.  $f(x) = x \ln(x)$ .
3.  $f(x) = \frac{e^x}{x}$ .