

This assignment is in two parts. The first part is due at the start of class on Day 26. It will not be collected, but you are expected to complete these exercises, just to practice basic skills. If you feel that you need more practice, then do more problems or talk to me.

17.3 Exercise 29.

The second part is due on paper at the start of class on Day 28. Submit polished solutions, including all necessary work and no unnecessary work, in the order assigned.

A. 17.3 Exercise 44. (You might want to do Exercise 41 first, but you don't have to hand that in.)

B. Today we discussed the Mandelbrot set, which follows from studying the complex function  $f(z) = z^2 + c$ . Alter the code in `mandelbrot.nb` so that it uses the  $f(z) = z^3 + c$  instead. You have to change just one line, in the `escape` function. Hand in both the altered line and a printout of the resulting fractal on the rectangle  $[-2, 2] \times [-2, 2]$ .