1. Memorize Cauchy’s formal definition of
\[ \lim_{x \to a} f(x) = L \]
from page 75.

2. Go to problem 2.3: 38. Write down a \( \delta \)-recipe for this limit. Box the recipe so Kerr can see it. Then write down a proof that this recipe works. This proof should be a rising chain of equalities and inequalities which begins with \( |f(x) - L| \) on the left, and rises to \( \varepsilon \) on the right.

Click [here](#) for a secret scratchwork example.

3. Go to problem 2.3: 40. Show the secret scratchwork which helps you find a \( \delta \)-recipe for this limit. Box this recipe. And then write a proof that the recipe works.

4. Go to problem 2.3: 42 and treat the situation as in problem 3.

5. Go to problem 2.2: 13 and treat the situation as in problem 3.

Purely recreational: click [here](#) for a Java aplet which lets you make interactive pictures like Figure 2.22, page 78.