Individual Homework #9: Due November 24

Please **READ** Section 11.2, and Section 11.4 up to, but not including, the subsection "Partial Fractions" on page 725.

Please **DO** exercises 1 (all parts EXCEPT for (p) and (r)), 2a–g, 4, 5, 7, 8b, Section 11.2 (pp. 708–710); and exercises 1, 2abcd, Section 11.4 (pp. 729–733).

Hints and Notes:

- For exercises 1 and 2, pages 708–709, don't worry about the long instructions in the text on how to do the problems. Just do them as we did in class, using $u = \ldots$ and $du = \ldots$. (In particular, you don't need to check any results here numerically.)
- For exercise 1g, page 708, first write $\tan x = \sin x / \cos x$; then try a substitution. For exercise 1i, page 708, try $u = x/2$, and then note (you may assume this) that $d/du[\sec(u)] = \sec(u)\tan(u)$. For exercise 1h, page 708, try $u = \tan(x)$. For exercise 1q, page 708, try $u = 2y$, and then remember what the derivative of $\arctan(u)$ is. For exercise 2g, page 709, try $u = x/2$, and then (again) remember what the derivative of $\arctan(u)$ is.
- For exercise 7a, page 710, please use Matlab for your graph. Also, for exercise 7d, page 710, think about what happens to your answer from part (c) as b goes to ∞. (Keep in mind that e^{-b^2} approaches *zero* as b grows larger and larger without bound.)