

In-Class Exercise: Secant Method & fzero

1. Use `fzero` to find one of the roots of $y = (x + \exp(x))\cos(x)$. Use $x_0 = 1$ as your initial guess.
2. Repeat problem 1, but use $[0,1]$ as starting interval. What happens? Pick a better interval that does work and turn in your results.
3. Do one iteration of the secant method “by hand” (use Matlab for calculations) for the function $y = x^2 - 2$ with the starting values of $x_0 = -0.5$ and $x_1 = 0.5$. What happens? Explain why this happened.