

Math 17A

Kouba

An Example Using the Bisection Method

$$f(x) = \ln(x+1) + x - 1$$

<u>a</u>	<u>b</u>	<u>$\frac{1}{2}(a+b)$</u>	<u>f(a)</u>	<u>f(b)</u>	<u>$f(\frac{1}{2}(a+b))$</u>
0	1	0.5	-1	+0.693	-0.095
0.5	1	0.75	-0.095	+0.693	+0.310
			-0.095	+0.310	+0.111
			-0.095	+0.111	+0.010
			-0.095	+0.010	-0.041
			-0.041	+0.010	-0.015
			-0.015	+0.010	-0.002
			-0.002	+0.010	+0.005
			-0.002	+0.005	+0.001