1. Find a real root of  $x^3 - 2x - 2 = 0$  by bisection method: start with  $[a_0, b_0] = [0, 2]$ . Find  $[a_4, b_4]$ . How close is  $x_0 = (a_4 + b_4)/2$  to the true root?

See Lecture 10

2. Find an approximate root with error less than  $\epsilon = 10^{-3}$ .

See Lecture 10.