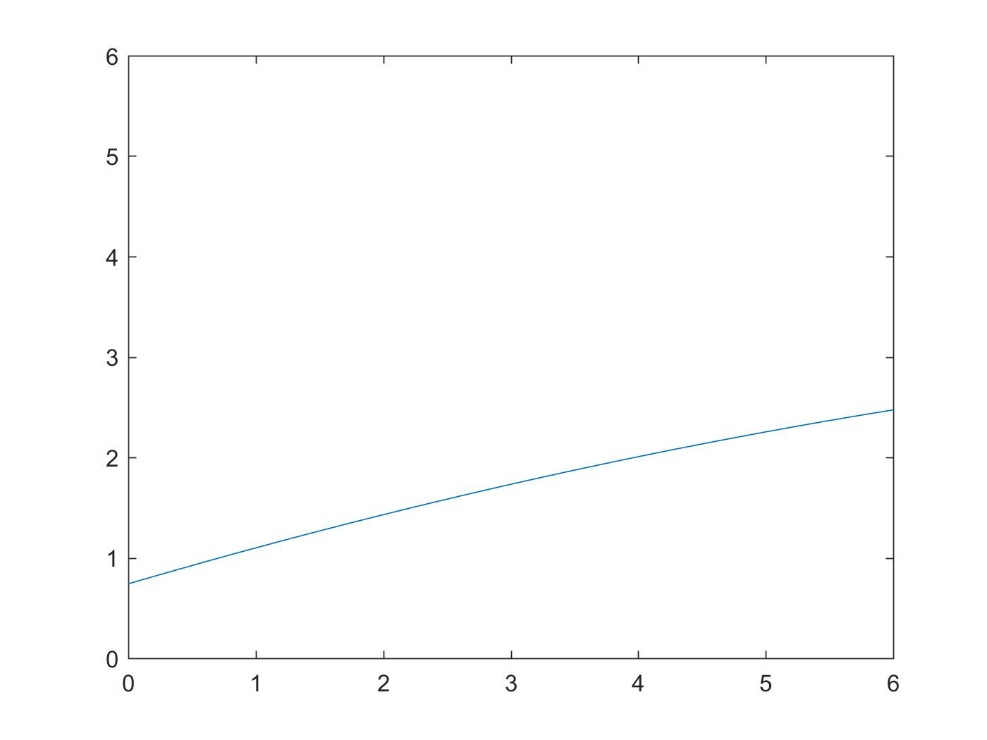
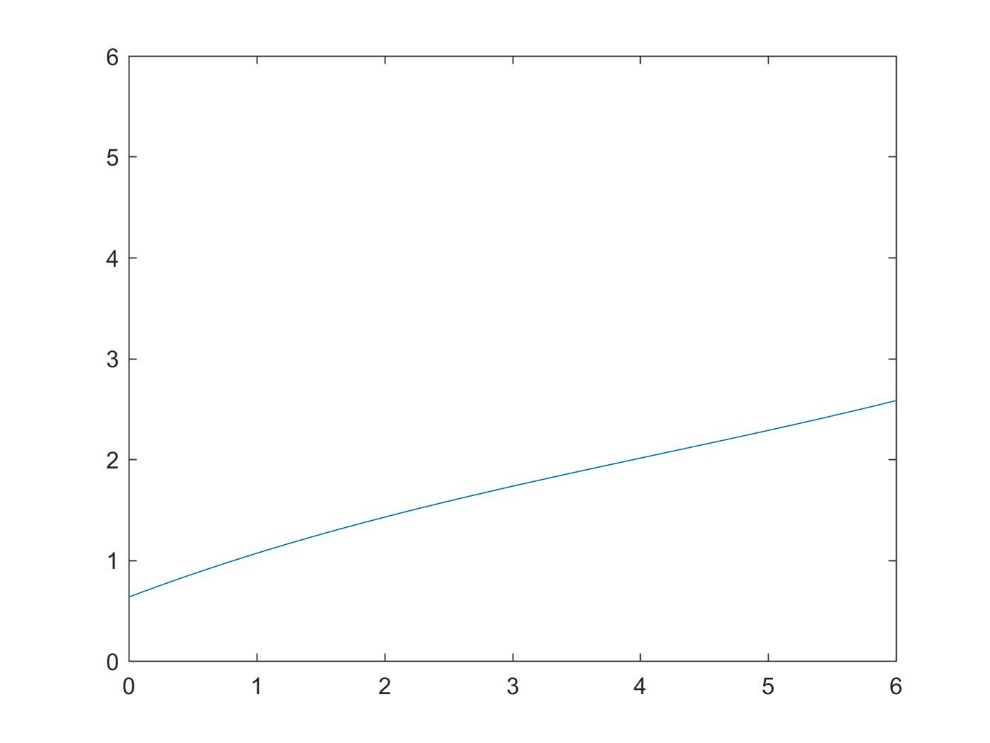
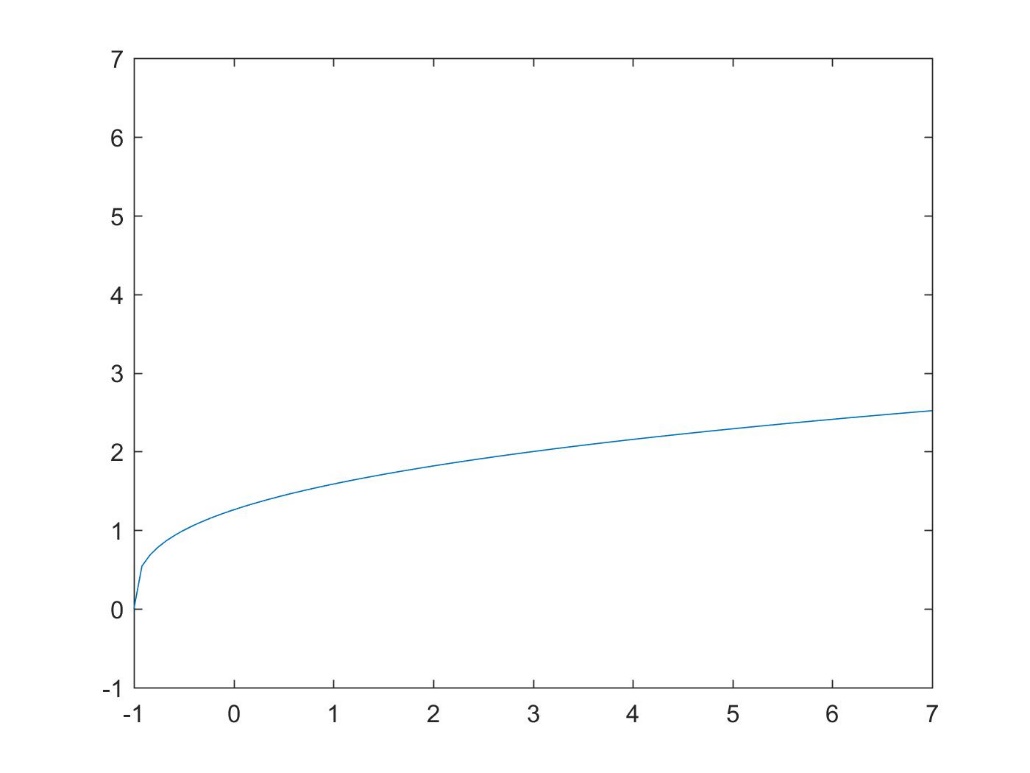
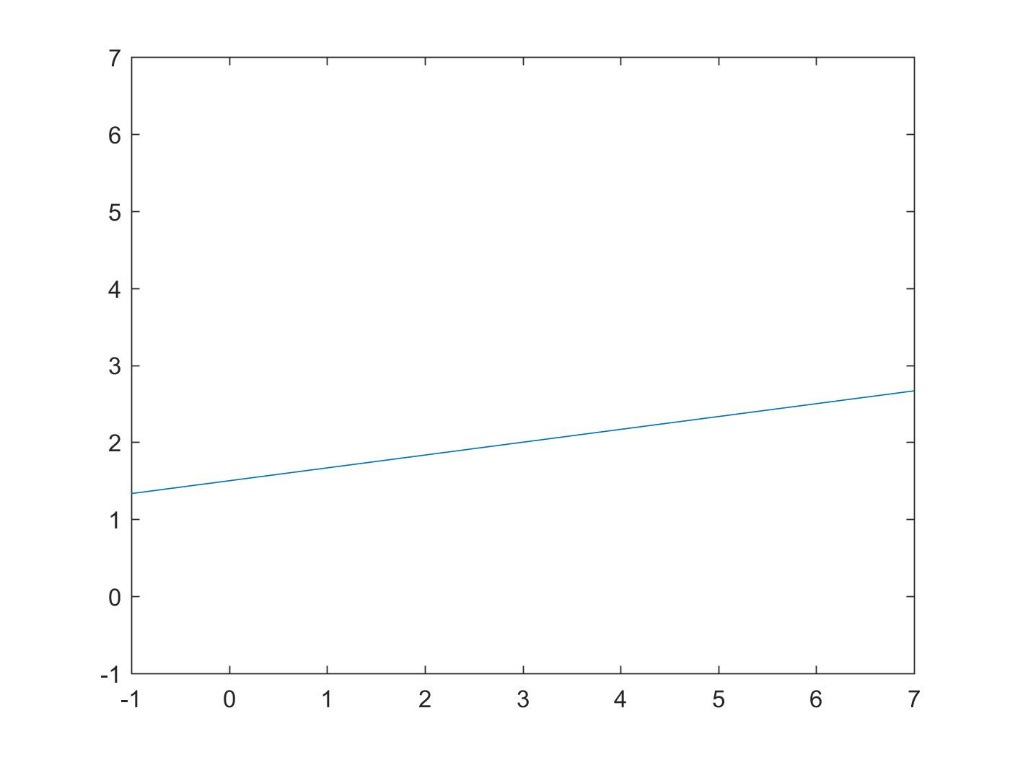
Problem 1a

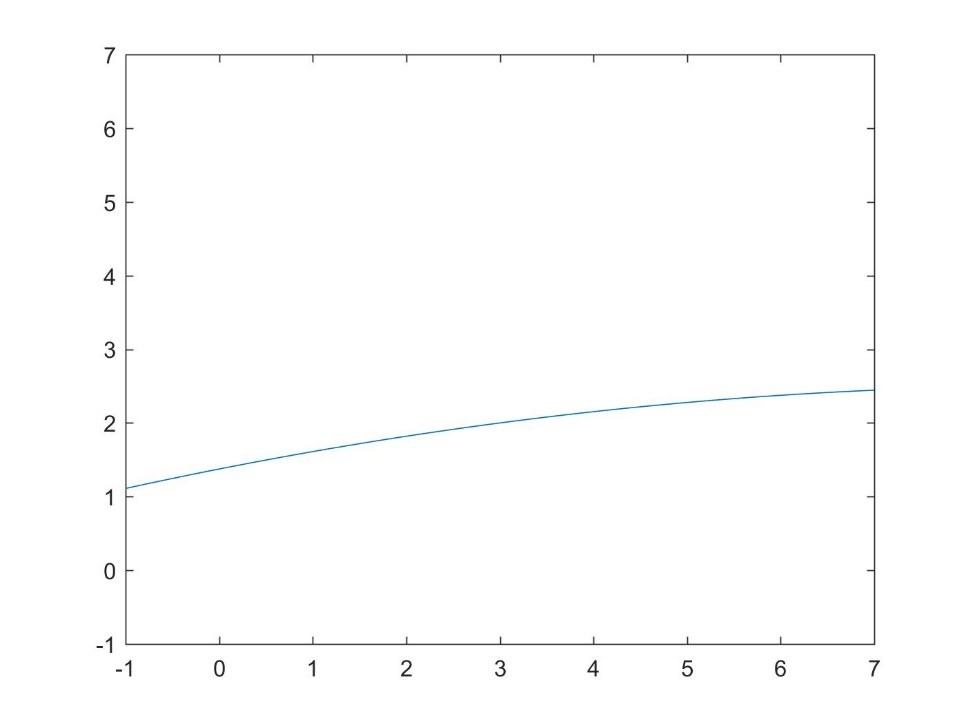
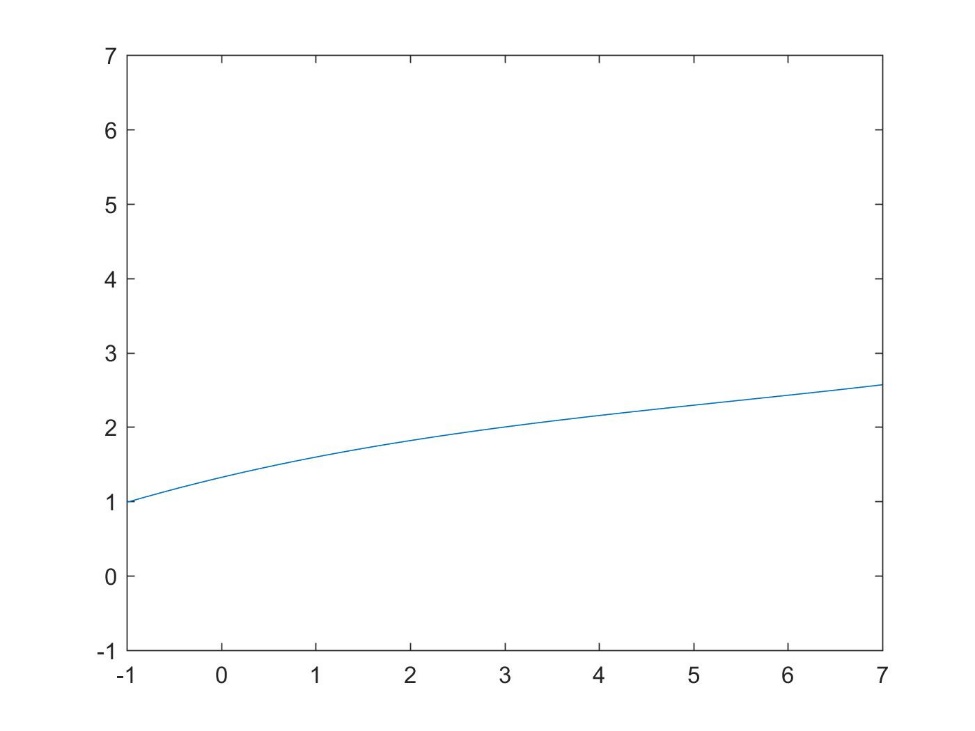
f(x) linear approximation



quadratic approximation cubic approximation

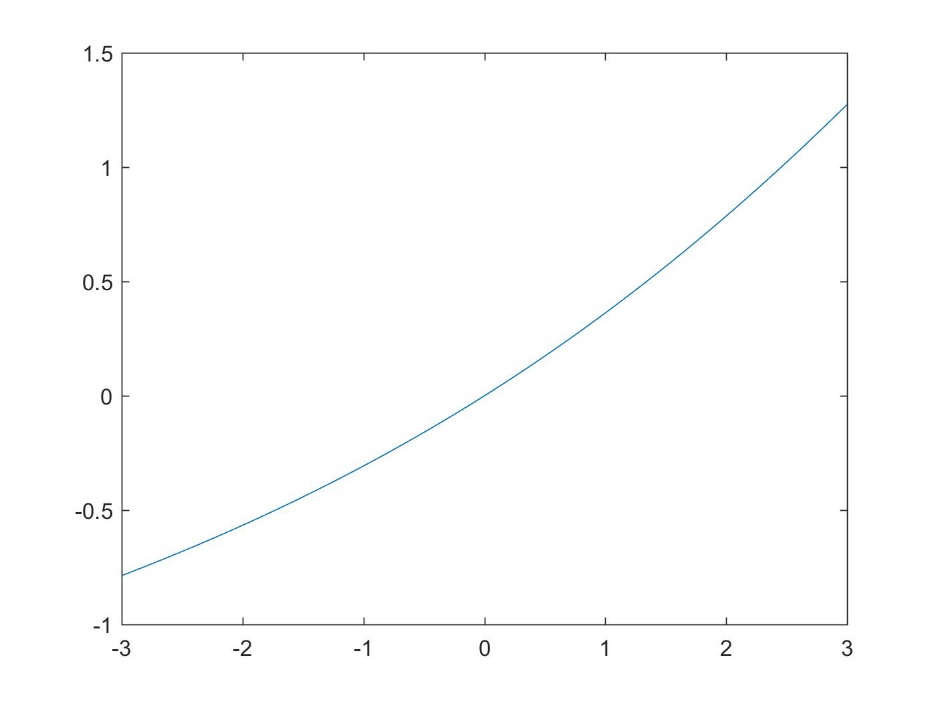
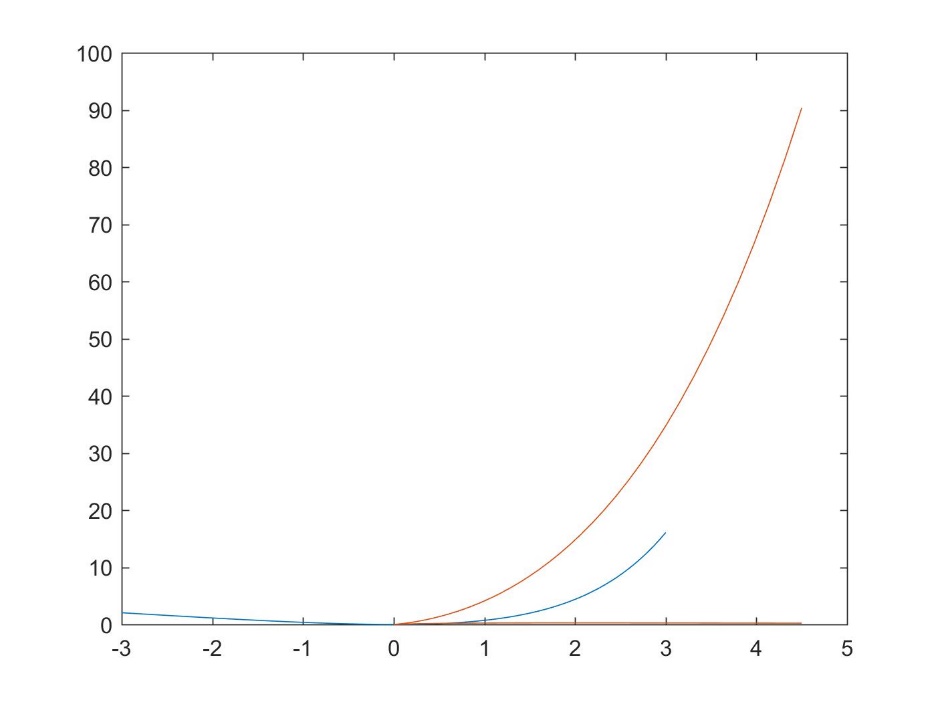
Problem 1b

f(x) linear approximation

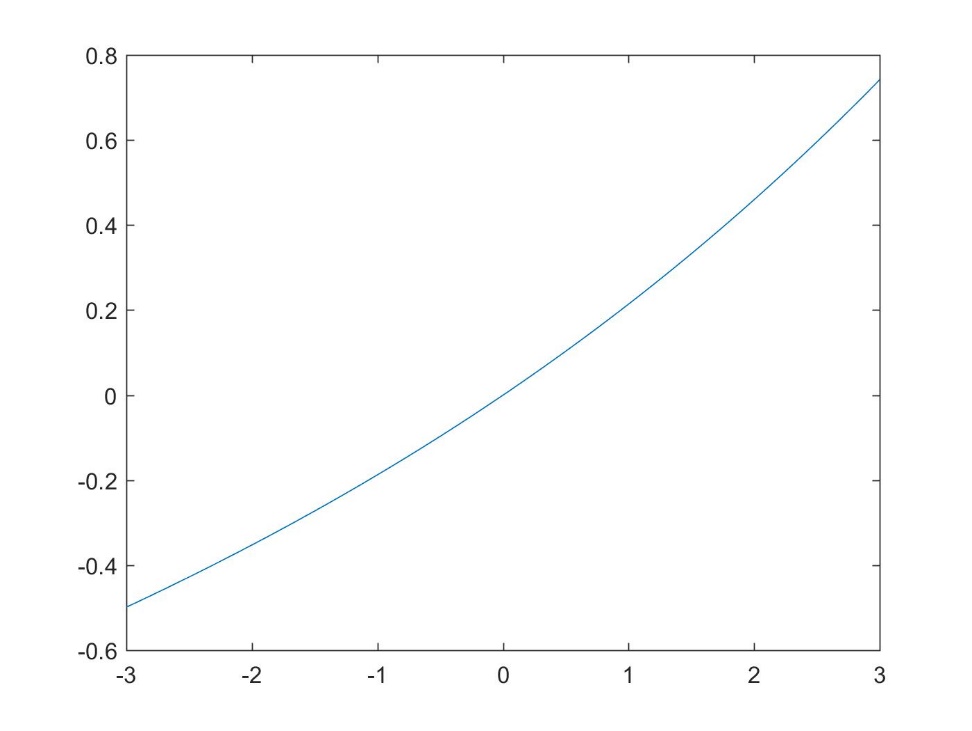
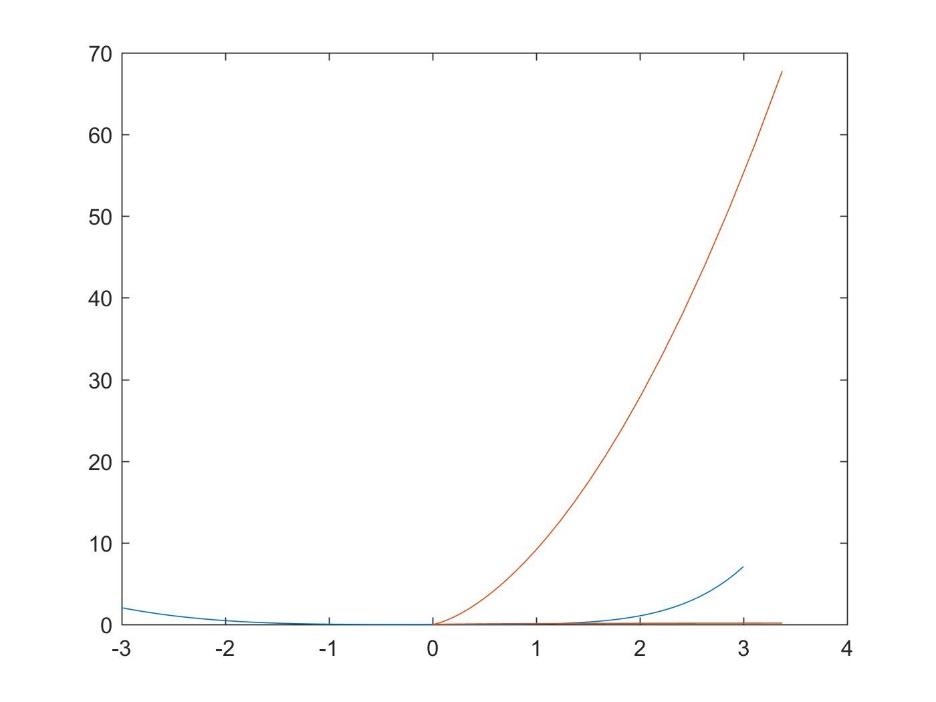


quadratic approximation cubic approximation

Problem 5c

n=1

c(x) E(x)

n=3

c(x) E(x)

Note: For both E(x) graphs, the real error is shown in blue, the upper bound in orange, and the lower bound in red.