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CSCI 3656 Problem Set 6

1. Linear interpolation

Source: <https://en.wikipedia.org/wiki/History_of_California_1900_to_present#cite_note-2>

* 1. Interpolation for California population numbers for (x1, y1) = (2000, 33871648), (x2, y2) = (2010, 37253956) and x = 2005. Program computes that the population of California in 2005 was roughly 35562802 people. A quick google search for California’s population in 2005 gives 35.83 million, so this is a fairly accurate estimate.

1. Extrapolation – using the same data but for 2050 rather than 2005 gives the prediction that California’s population will reach 50783188 at its current rate of growth. The source also states that the population is projected to reach 50 million people by 2050.
2. Lagrangian interpolating polynomial