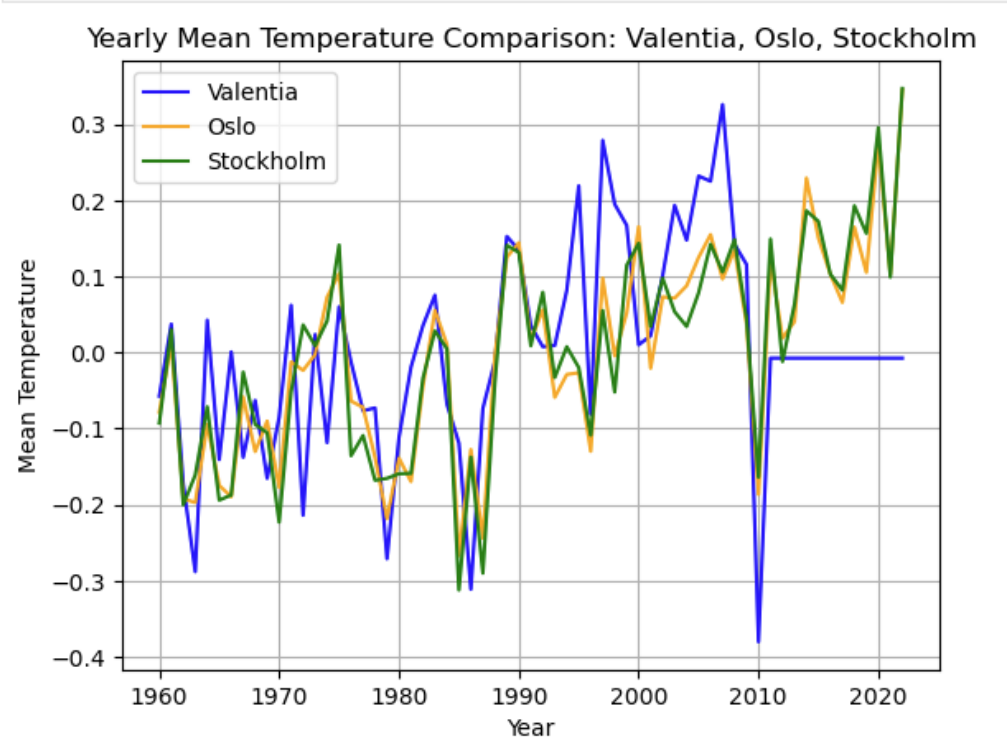
Exercise 1.3

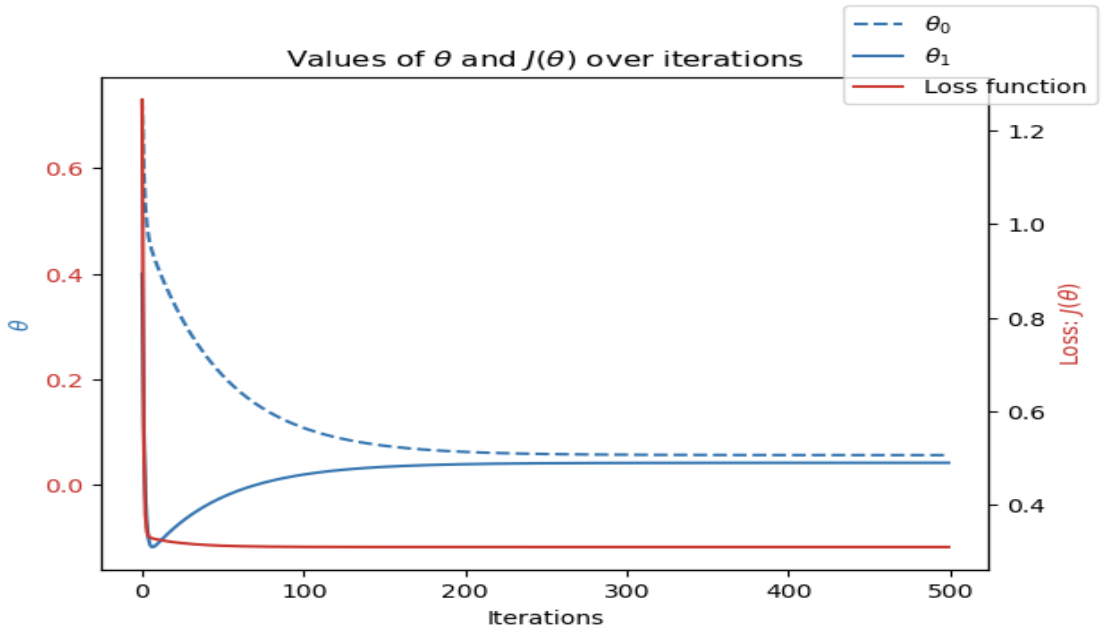
| Weather Station | Year | Theta0 | Thera1 | Iteration | Step Size |
|---|---|---|---|---|---|
| Stockholm | 1990 | 0.0559 | 0.0414 | 500 | 0.1 |
| Oslo | 2000 | -0.234 | 0.2178 | 500 | 0.1 |
| Valentia | 1980 | -0.692 | 0.3163 | 500 | 0.1 |



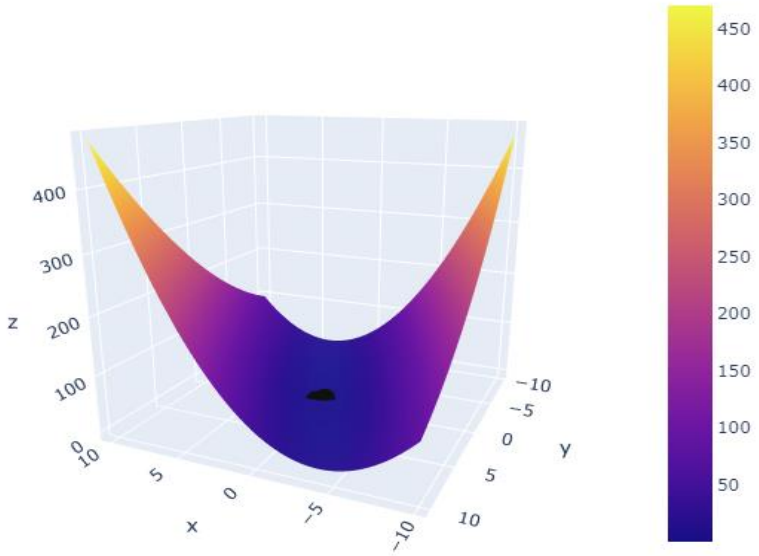

I aggregated the average yearly temperature for the three countries:

- Overall temperatures have flucuated year to year, but have steadily increased in the long term.
- Valentia increased temperature drastically between 1995 and 2000.
- All three countries saw a decrease in average yearly temperature in 2010.

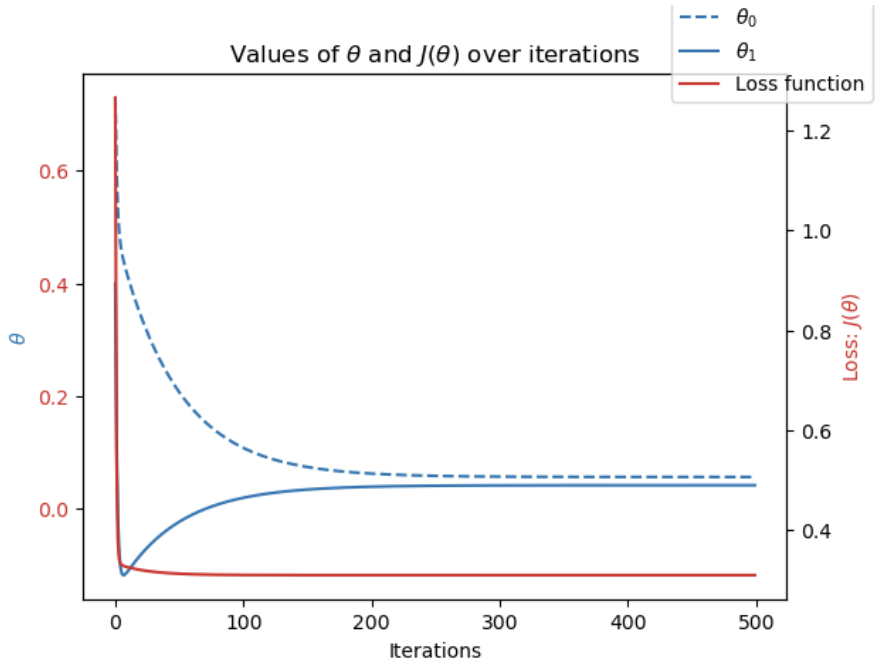
# Gradient Descent Analysis - Stockholm in 1990



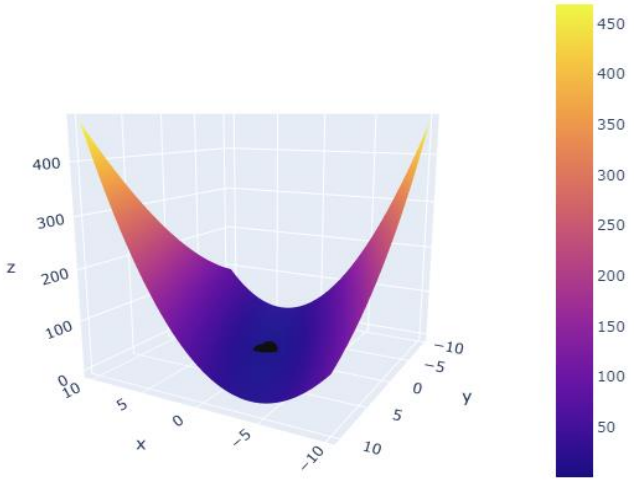

Loss function for different thetas



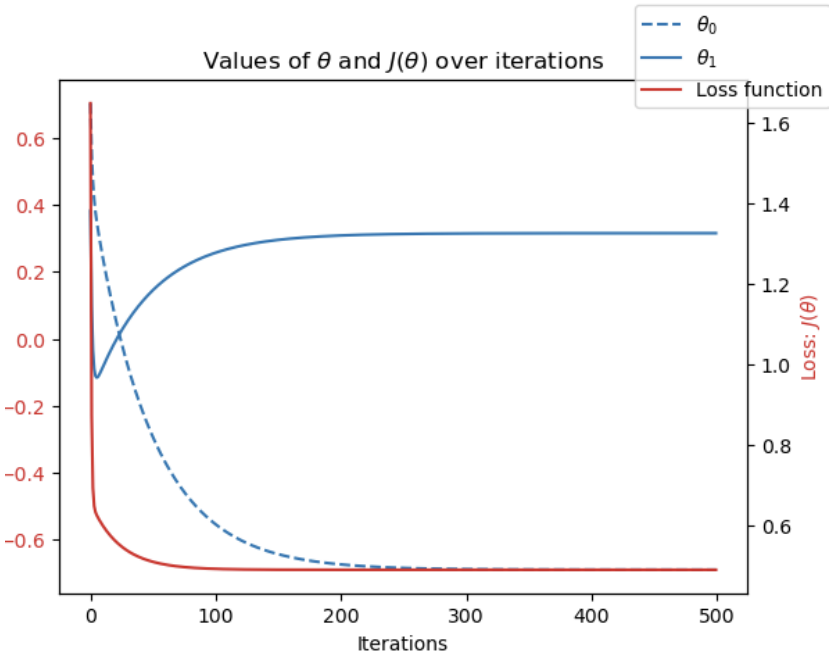
# Gradient Descent Analysis - Oslo in 2000




Loss function for different thetas



# Gradient Descent Analysis - Valentia in 1980




Loss function for different thetas