

Intro.ipynb

Untitled2.ipynb

Untitled1.ipynb

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Code

SQLite

```
[1]: import matplotlib.pyplot as plt
import numpy as np

def gradient_descent (f, learning_rate, initial_point):
    def deriv(f, base_point):
        return (f(base_point+10*(-5))-f(base_point))/(10*(-5))

    x_coords=(initial_point)
    y_coords=(f(initial_point))

    point=f(initial_point-learning_rate*deriv(f,initial_point))
    for i in (1000):
        x_coords.append(point)
        y_coords.append(f(point))

        point=point-learning_rate*deriv(f,point)
        if deriv(f,point)<0.001:

            plot_range=np.linspace(min(x_coords)-0.5,
                                    max(x_coords)+0.5,10000)
            function_range=(f(i) for i in plot_range)

            plt.plot(plot_range, function_range)
            plt.plot(x_coords,y_coords)

    return round(x_coords (-1),3) round (y_coords(-1),3)
```