Taller 04 14-dec

```
p1 = (5.4, 3.2)
p2_i = (9.5, 0.7)
p3 = (12.3, -3.6)
```

```
from ipywidgets import interact
import matplotlib.pyplot as plt
import numpy as np

m = -1
b = 8

def update_plot(p2_x, p2_y):
    x_coords = [p1[0], p2_x, p3[0]]
    y_coords = [p1[1], p2_y, p3[1]]

    X = np.array(x_coords)
    Y = np.array(y_coords)
    m_, b_ = np.polyfit(X, Y, 1)

    plt.figure(figsize=(10, 6))
    plt.scatter(x_coords, y_coords, color="red")

    x_line = [min(x_coords), max(x_coords)]
    y_line = [m_*x + b_ for x in x_line]
    plt.plot(x_line, y_line, color="blue")

    plt.xlabel("X")
    plt.ylabel("Y")
    plt.title("Points and Line Plot")
    plt.show()

_ = interact(update_plot, p2_x=(5.5, 12.3, 0.1), p2_y=(-10.0, 10.0, 0.1))
```

interactive(children=(FloatSlider(value=8.9, description='p2_x', max=12.3, min=5.5), FloatSl

https://github.com/carol230/TalleresClasesMetodosNumericos/blob/main/Taller04.ipynb