Regresión Lineal

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```
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
from scipy.stats import linregress

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

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

    m, b, r_value, p_value, std_err = linregress(x_coords, y_coords)

    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(f"Points and Line Plot: m: = {m:.4f}, b = {b:.4f}")
    plt.show()

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

p2_x 8.90

p2_y 0.00