```
X = [1, 2, 3, 4, 5]

y = [2, 4, 5, 4, 5]


n = len(X)

x_mean = sum(X) / n

y_mean = sum(y) / n


num = sum((X[i]-x_mean)*(y[i]-y_mean) for i in range(n))

den = sum((X[i]-x_mean)**2 for i in range(n))


m = num / den

c = y_mean - m * x_mean


y_pred = [m*X[i] + c for i in range(n)]


print("Predicted:", y_pred)

print("Slope:", m)

print("Intercept:", c)
```

OUTPUT: