

Birzeit University
Mathematics Department
Second Semester 2016/2017
STAT2311 – Homework 3

Given the following sample

x	y
-3	-0.5
-1	-0.5
0	1
1	3.5
2	7

- 1) Plot a scatter diagram. Consider x as the horizontal variable and y as the vertical variable.
- 2) Find the estimated regression equation $\hat{y} = ax + b$.
- 3) Find the coefficient of determination for the estimated regression equation $\hat{y} = ax + b$.
- 4) Estimate y when $x = -2$.
- 5) Plot a scatter diagram. Consider y as the horizontal variable and x as the vertical variable.
- 6) Find the estimated regression equation $\hat{x} = cy + d$.
- 7) Find the coefficient of determination for the estimated regression equation $\hat{x} = cy + d$.
- 8) Estimate x when $y = 0$.