

SOC510 Homework#1

Due January 26 2012 (Thursday)

ChangHwan Kim / Stefan Vogler

i	X_i	Y_i
1	6	9
2	4	5
3	6	3
4	0	7
5	6	8

I. Solve the following

$$\begin{array}{llllll} \text{(a)} \sum_{i=1}^5 X_i & \text{(b)} \sum_{i=1}^3 Y_i & \text{(c)} \sum_{i=3}^5 X_i & \text{(d)} \sum Y & \text{(e)} \sum_{i=1}^5 (X + Y) & \text{(f)} \sum_{i=1}^5 X_i Y_i \\ \text{(g)} \sum_{i=1}^5 X_i^2 & \text{(h)} \left(\sum_{i=1}^5 X_i \right)^2 & \text{(i)} \sum X & \text{(j)} \sum Y^2 & & \end{array}$$

II. Solve the following (where $c = 3$)

$$\begin{array}{llllll} \text{(a)} \sum_{i=1}^5 cX_i & \text{(b)} \sum cXY & \text{(c)} \sum c(X + Y) & \text{(d)} \sum_{i=1}^5 c & \text{(e)} \sum_{i=1}^3 (X + c) & \end{array}$$

III. Simplify the following (where k is a constant and c is a constant. **2 points extra credit.**)

$$\frac{\sum_{i=1}^N c(kW_i + W_i)}{\sum_{i=1}^N W_i}$$

IV. Solve the following questions from the textbook

1.24; 1.27; 1.30; 1.33; 1.34(a)