

DEPARTMENT OF STATISTICS

**Paper 475.330**

**Assignment 1**

**Due: Aug 6**

A hospital administrator wished to study the relation between patient satisfaction (SAT, an index) and patient's age (AGE, in years), severity of illness (SEV, an index), and anxiety level (ANX, an index). She randomly selected 23 patients and collected the data present below. Larger values of SAT, SEV, and ANX represent, respectively, more satisfaction, increased severity of illness, and higher levels of anxiety.

AGE	SEV	ANX	SAT		AGE	SEV	ANX	SAT
50	51	2.3	48		36	46	2.3	57
40	48	2.2	66		41	44	1.8	70
28	43	1.8	89		49	54	2.9	36
42	50	2.2	46		45	48	2.4	54
52	62	2.9	36		29	50	2.1	77
29	48	2.4	89		43	53	2.4	67
38	55	2.2	47		34	51	2.3	51
53	54	2.2	57		36	49	2.0	66
33	56	2.5	79		29	46	1.9	88
33	49	2.1	60		55	51	2.4	49
29	52	2.3	77		44	58	2.9	52
43	50	2.3	60					

The administrator has brought this data to you. She wants to know what the data indicates about the way patient satisfaction is related to the other three variables. Write your report so that someone who is not familiar with statistical ideas and language will be able to understand it.