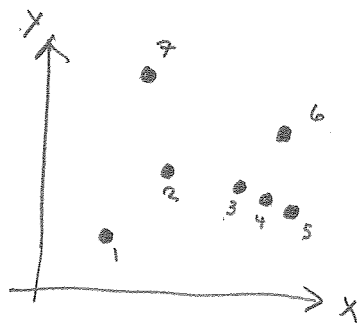


# CE 597 Adj. Geospa. Obs. HW #2

assigned Wed 16 Sep., due Wed. 23<sup>rd</sup>.

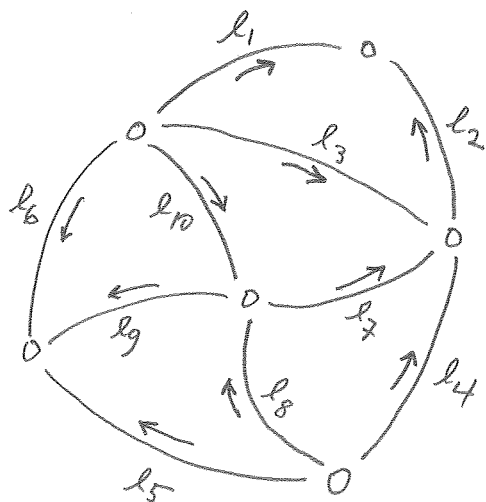
1.



#	X	Y	X'	Y'	$\sigma_{x'} = \sigma_{y'}$
1	1.7	1.3	5.8	6.0	.05
2	2.4	2.6	7.6	8.3	.05
3	3.8	2.5	10.6	7.8	.10
4	5.0	2.0	12.6	6.2	.05
5	5.7	1.7	13.8	5.4	.05
6	5.2	3.1	13.3	8.3	.05
7	2.0	4.5	7.5	12.2	.05

$X, Y$  are constant,  $X', Y'$  are observed. Solve the 2D, conformal, 4-parameter transformation by LS using indirect observations.  
Solve using MATRIX METHODS. What are  $\theta$  &  $\lambda$ ?

2.



#	l	$\sigma$
1	30.2	.15
2	9.9	.15
3	20.0	.15
4	7.9	.15
5	13.5	.35
6	25.0	.15
7	5.0	.15
8	2.8	.15
9	10.1	.15
10	14.7	.15

Solve the level network by LS, using observations only.  
Arrows point toward higher elevation