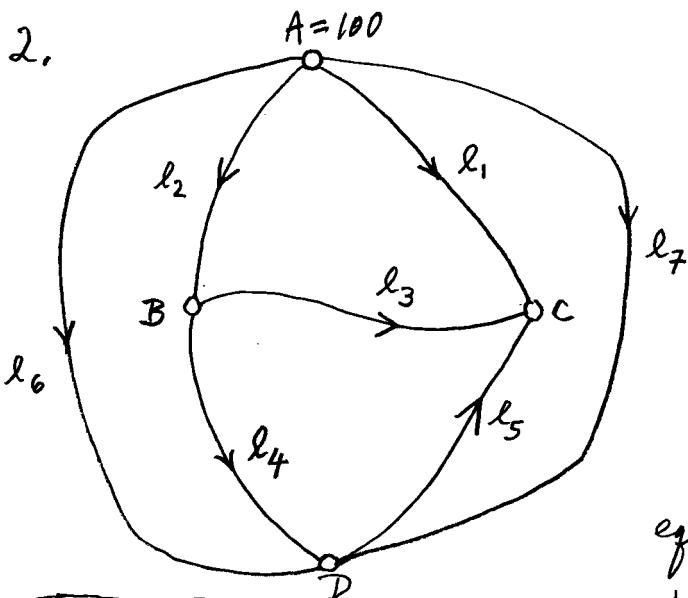
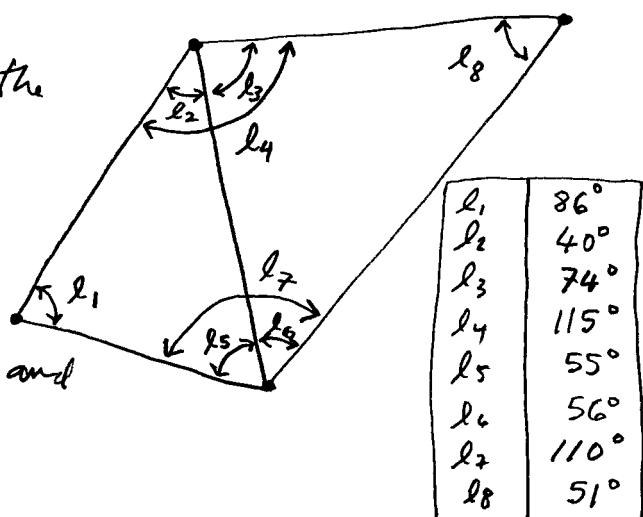


Data 1 Fall 2009

Homework 1, due Friday, 11 Sept.

1. Adjust the observed angles in the figure by Least Squares using the method of Indirect Observations, and the longhand approach. Show all of your work. The observations are of equal precision and are uncorrelated.



$l_1$	10.2
$l_2$	2.9
$l_3$	7.0
$l_4$	2.1
$l_5$	5.0
$l_6$	5.0
$l_7$	4.9

- Adjust the observed elevation differences shown in the figure by Least Squares using the method of Observations Only, and the longhand approach. Show all of your work. The observations are of equal precision and are uncorrelated. Arrows point uphill.

Note: even though I ask for manual, longhand approaches, when you finally reach the Normal Equations, use Matlab.