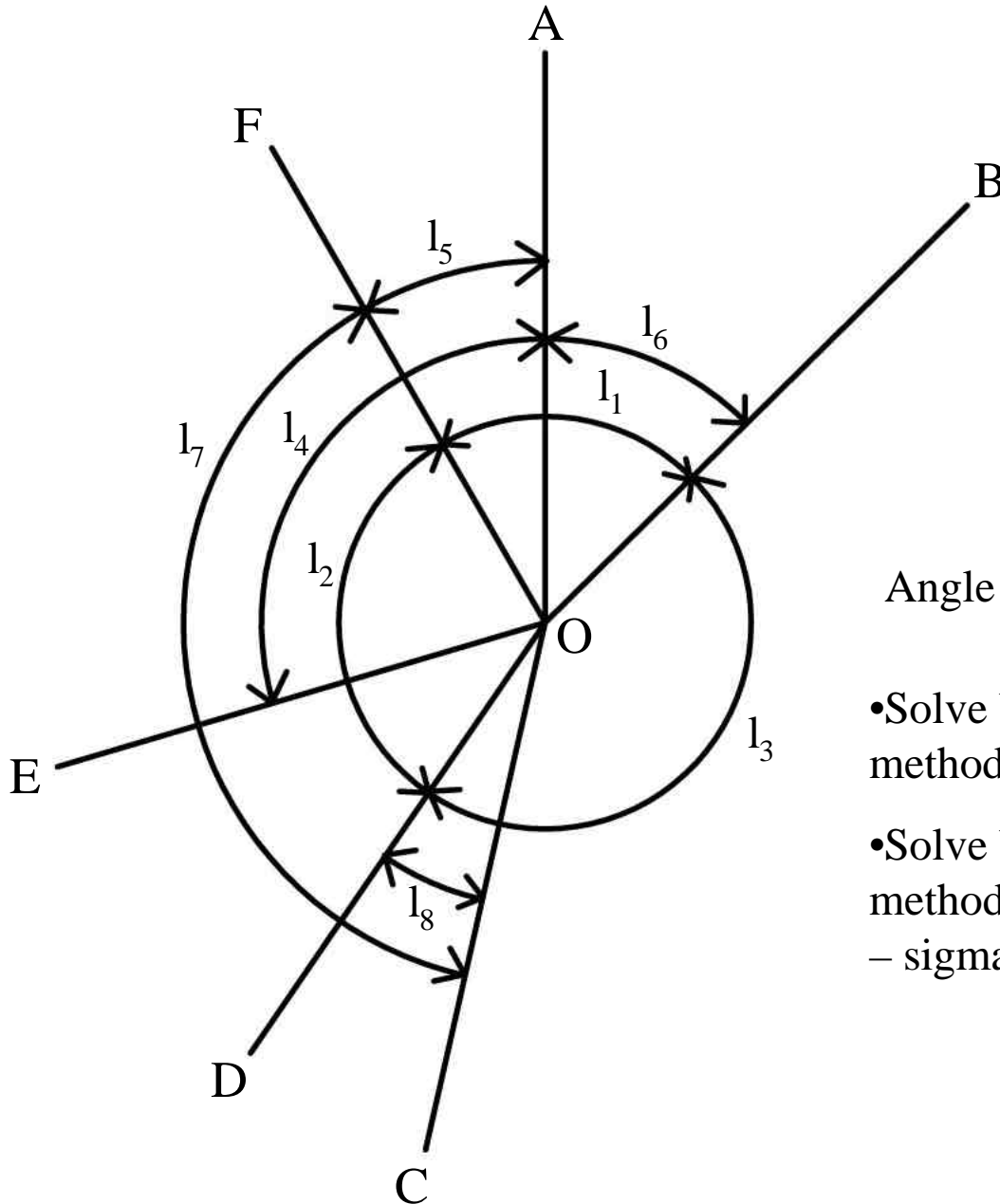


Homework 4, problem 1, Angle figure.



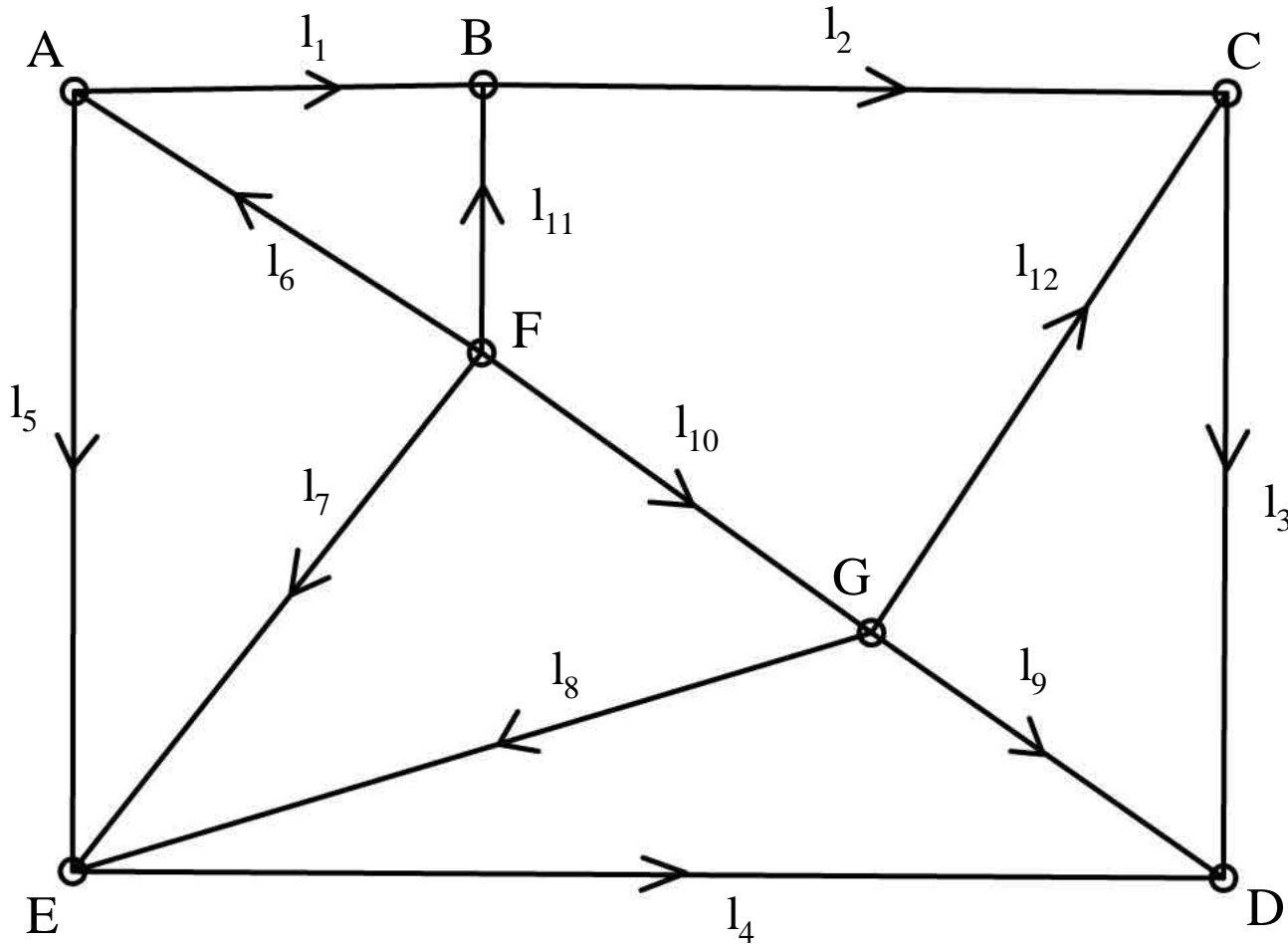
Observation	Value (D-M)
1	73-35
2	130-55
3	155-40
4	102-54
5	23-15
6	50-20
7	146-25
8	15-40

Angle EOF is fixed at 80 degrees.

- Solve by observations only – matrix method, all observations equal precision
- Solve by indirect observations – matrix method,  $\sigma_1 - \sigma_4 = 20$  min,  $\sigma_5 - \sigma_8 = 10$  min.

## Problem 2. level network

- Solve by observations only using the given sigmas
- Solve by indirect observations assuming equal precision, for this part you may assume that point A has elevation 100.00



Observ.	Value	Sigma
1	10.04	0.10
2	1.90	0.10
3	3.12	0.15
4	7.85	0.15
5	7.19	0.05
6	4.92	0.05
7	12.25	0.20
8	1.88	0.20
9	10.18	0.10
10	9.83	0.10
11	15.31	0.10
12	6.92	0.30