

Sheet #3

Note: You are required to submit the answers in a report within one week (hand writing)

1. Determine the horizontal angle for the following observations:

Occ. Point	Target point	Left hand face			Right hand face			Av.	Angle
O	A	00	00	00	179	59	20
	B	110	59	40	291	00	40	

2. A theodolite with two venires is used to measure a horizontal angle, the table below shows the recorded observations. Use these data to determine the horizontal angle.

Inst. at	Sighted to	Left hand face		Right hand face		Average	Average
		A	B	A	B		
A		0	"	0	"	"	0
	1	00 01 40	180 02 00	180 01 00	00 01 20		
	3	55 12 20	235 11 40	235 12 20	55 12 00		

3. A theodolite with two venires is used to measure a horizontal angle, the table below shows the recorded observations. Use these data to determine the horizontal angle.

Inst. at	Sighted to	Left hand face		Right hand face		Average	Average
		A	B	A	B		
A		0	"	0	"	"	0
	1	00 01 20	180 01 00	180 01 20	00 01 40		
	3	73 42 20	225 41 40	253 42 40	73 42 20		

Surveying II - CE 371

4. Calculate the value of the vertical angle at point B.

Occ. Point	Target point	Left hand face Vl.	Right hand face Vl.	Av.	Remark
O	B	96 23 30	265 36 10

5. Convert the following quadrennial bearings into whole circle bearing and find their back bearings: S78 W, N 45 W, S 43 E and N 52 E.

Good Luck