

TRIBHUWAN UNIVERSITY  
INSTITUTE OF ENGINEERING  
PULCHOWK CAMPUS  
**DEPARTMENT OF CIVIL ENGINEERING**

SURVEY INSTRUCTION COMMITTEE  
Triangulation

Triangle ABC										
Angle	Value			Correction	Corrected Angle			Side	Length	Length (After Avg AB used)
	D	M	S		D	M	S			
A	87	31	42	3"	87	31	45	BC	77.794	77.808
B	39	5	52	3"	39	5	55	AC	49.107	49.116
C	53	22	17	3"	53	22	20	AB	62.49	62.501
Sum	179	59	51							
Error	0	0	9							

Triangle ABD										
Angle	Value			Correction	Corrected Angle			Side	Length	Length (After Avg AB used)
	D	M	S		D	M	S			
A	87	27	27	2"	87	27	29	BD	74.201	74.188
B	35	13	40	2"	35	13	42	AD	42.844	42.844
D	57	18	47	2"	57	18	49	AB	62.512	62.501
Sum	179	59	54							
Error	0	0	6							

Triangle BCE									
Angle	Value			Correction	Corrected Angle			Side	Length (After Avg AB used)
	D	M	S		D	M	S		
B	50	20	46	4"	50	20	50	CE	61.665
C	53	22	5	4"	53	22	9	BE	64.273
E	76	16	57	4"	76	17	1	BC	77.808
Sum	179	59	48						
Error	0	0	12						

Triangle FEC									
Angle	Value			Correction	Corrected Angle			Side	Length (After Avg AB used)
	D	M	S		D	M	S		
F	68	31	56	3"	68	31	59	EC	61.665
E	45	16	45	3"	45	16	48	FC	47.082
C	66	11	11	3"	66	11	14	FE	60.621
Sum	179	59	51						
Error	0	0	9						

Triangle FEG									
Angle	Value			Correction	Corrected Angle			Side	Length (After Avg AB used)
	D	M	S		D	M	S		
F	80	9	45	5"	80	9	50	EG	62.445
E	26	47	37	5"	26	47	42	GF	28.57
G	73	2	23	5"	73	2	28	FE	60.621
Sum	179	59	45						

Error	0	0	15
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