

**Exercise N°1**

We conducted observations using a T1 theodolite (standard deviation $\sigma = \pm 01$ mgr) as recorded in the table below. Complete the table, noting that the objective is to determine the horizontal angles.

POINTS	Face Left Reading (Gr.)	Reduced FL on Reference	Face Right Reading (Gr.)	Reduced FR on Reference	Horizontal Angle
A (Ref.)	0.173		100.417		
B	92.650		192.891		
C	140.505		240.748		
D	259.064		359.305		
E	371.613		71.860		
A	0.175		100.421		

Exercise N°2

To determine the elevation of the intermediate points (I1, I2, I3, I4), a leveling survey was carried out between the starting point **A** and the endpoint **B**. Given the following data:

Starting elevation: **89.113(m)**, Endpoint elevation: **90.707(m)**, Tolerance=**14 mm**

Under these conditions, you are asked to complete the table.

Station	Target Point	Backsight Readings (mm)			Foresight Readings (mm)			Distance Back Forth	Elevation Difference ΔH (mm)		Adjustment (mm)	Elevation (m)
		S'' m1''	n'' m''	S'' m2''	S'' m1''	n'' m''	S'' m2''		+	-		
St1	A	2055	1967	1880								89.113
St2	I1	2008	1906	1804								
St3	I2	1908	1755	1600	1821	1715	1608					
St4	I3	1788	1669	1539	2070	1919	1769					
St5	I4	1617	1562	1506	2003	1879	1755					
St6	B				901	841	780					90.707