

Trig Heights #2

2. From A to B you are observing down hill so the change in height is negative, hence an angle over 90° while from B you are observing up the hill and observe an angle less than 90° , so the change in height will be positive. (Also instrument and target heights are likely to change when you move them).
3. $1489.54 \times \cos(92^\circ 36' 30'') + 1.53 - 1.414 = -67.670\text{m}$
4. $1489.52 \times \cos(87^\circ 23' 28'') + 1.408 - 1.530 = 67.678\text{m}$
5. 8mm or 0.008m
6. 67.674m
7. $123.915\text{m} - 67.674 = 56.241\text{m}$
8. HD (from A) = 1487.997m
HD (from B) = 1487.976m \Rightarrow there is a 2.1cm difference in readings
9. $\Delta N = -1406.099\text{ m}$ $\Delta E = 491.544\text{ m}$
New Coordinates are: 326355.544 mE
784558.901 mN