



### Assignment

Dear CVG 2171 students,

Please solve the problems below and return them to you TA at the next tutorial session.

- 1- Convert the azimuths from north to bearings, and compute the angles, smaller than  $180^\circ$  between successive azimuths.

$98^\circ 12' 55''$ ,  $153^\circ 26' 40''$ ,  $192^\circ 56' 22''$ , and  $288^\circ 12' 50''$

- 2- Convert the bearings to azimuths from north and compute the angle, smaller than  $180^\circ$ , between successive bearings.

$N32^\circ 42' 38'' E$ ,  $S54^\circ 02' 02'' E$ ,  $S22^\circ 42' 56'' W$ , and  $N44^\circ 35' 26'' W$

- 3- Course AB of a five-sided traverse runs due north. From the given balanced interior angles to the right, compute and tabulate the bearings and azimuths from north for each side of the traverses in

$A = 82^\circ 13' 15''$ ,  $B = 106^\circ 35' 18''$ ,  $C = 28^\circ 45' 06''$ ,  $D = 205^\circ 14' 56''$ ,  $E = 117^\circ 11' 25''$



4- What magnetic bearing is needed to retrace a line for the conditions stated in

1875 Magnetic Bearing	1875 Declination	Present Declination
N32°45'E	8°12'W	2°30'E

5- In Figure 8.9(c), direct and reversed directions observed with a total station instrument from A to points B, C, and D are listed in below. Determine the values of the three angles, and the horizon misclosure.

Direct: 0°00'00", 106°52'06", 191°38'43", 359°59'58"

Reverse: 0°00'00", 106°52'04", 191°38'41", 0°00'00"

Good luck,