CLOSED TRAVERSE FIELD PROBLEM (Special Problem)  
DUE November 06, 2015 (Friday, 4:00 PM)

The following sequential steps should be followed for completion of this exercise. 
Please present this material in a neat, orderly, fashion. **Staple all pages including a cover sheet. (this should be a "work of art")**

1. Collect field data
2. Sum the average interior angles. This is the doubled angle divided by 2.0
3. Adjust the angles as required to make the total 540°.
4. Calculate bearings by assuming that AB is due North.
5. Calculate latitudes and departures.
7. Calculate final coordinates using balanced latitudes and departures, assume A is (N1000, E1000).
8. Calculate final lengths and bearings by inversing between the final coordinates. AB will likely no longer be exactly due North as was initially assumed.
9. Calculate area of the closed traverse by BOTH DMD and coordinate methods. You should get the same answer from each.
10. Provide a scaled drawing showing final bearings and final lengths from step 8. Show a North arrow on your drawing. Make the figure as big as you can and still fit on 8.5 x 11 paper. You will need an ENGINEERS SCALE to accomplish this. **DO NOT USE ANY OTHER SCALE !!**
11. Steps 1 -10 are to be done by hand
12. Provide a computer solution using text software; CLEARLY compare these answers with hand calculations. This will be accomplished by providing a table showing the area as well as bearing, and distance of each course from both hand calculations and computer output. Use the following tables to show the comparisons.
See step #12, "Closed Traverse Field Problem"

<table>
<thead>
<tr>
<th>Course</th>
<th>From Hand Calculations</th>
<th>From Computer Output</th>
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<td>AB</td>
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<td>EA</td>
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Area from Hand Calculations
DMD
Coordinates

Area from Computer Output