Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Points: \_\_\_\_\_\_

1. In the figure and.

 a) Prove that the diagonals of parallelogram *ABCD* bisect each other (that is, AE=CE and BE=DE).

 (Hint: show that )

 b) Let ,  ,, and . Find ,, *AE*, *CE*, *BE* and *DE*.

 **D** **C**

 **E**

**A B**

2. In parallelogram *ABCD*, , , , and .

 Find,and the four angles.

 D C

A B