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