

## Chapter 2 Take Home Quiz Problem

Answer the following question carefully and using complete sentences. **Be sure to use correct vocabulary, to include any pertinent definitions, postulates, and / or theorems, and to answer all parts of the question.**

1. Points  $A$  ,  $B$  , and  $C$  lie on a line, with  $AB = 5.7$  and  $BC = 9.2$ . Janelle says this means that  $AC = 14.9$ . Roger says that  $AC = 3.5$ . Considering the given information, answer the following questions.
  - a. Explain a way in which Janelle could be correct, or indicate why she must be incorrect. Include a diagram along with your written explanation, and be sure to justify your answer. **(5 points)**
  - b. Explain a way in which Roger could be correct, or indicate why he must be incorrect. Include a diagram along with your written explanation, and be sure to justify your answer. **(5 points)**