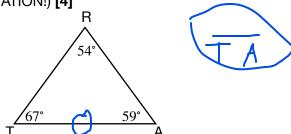
1. Given the diagram below, state the **smallest side** of the triangle.

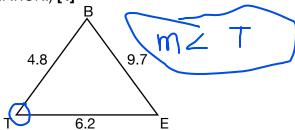
(REMEMBER GEOMETRY NOTATION!) [4]



(not drawn to scale)

2. Given the diagram below, state the <u>largest angle</u> of the triangle. (REMEMBER GEOMETRY NOTATION!) [4]

(not drawn to scale)



- 3. Determine whether a triangle exists with the given side lengths. **SHOW WORK!** Answers without demonstration of mathematical reasoning will earn zero credit.) [9]
  - (a) 5, 9, 16

- (b) 21, 14, 7
- (c) 12, 9, 15

4. Given two sides of a triangle are 8 and 17, find the range of values representing the 3rd triangle side. SHOW ALGEBRAIC WORK! *Express your answer as a compound inequality*. **[8]**