0.0.1 1(a)(i) With and without SST

Compare the two plots above. In your opinion, which model is a better fit for the observed data?

Type your answer here, replacing this text.

0.1 2.b. Questions:

0.1.1 (i) Start with a small value of $h = 0.1$, then slide the value of h, what do you observe?

Type your answer here, replacing this text.

0.1.2 (ii) Does the density estimate $\widehat{p}_h(x)$ seem to contain more modes for higher values of h or lower values of h?

Type your answer here, replacing this text.

0.1.3 (iii) For what values of h (small or large), does $\widehat{p}_h(x)$ fit the current data more closely? Would this value generalize well to other unseen data?

Type your answer here, replacing this text.

0.2 3.c. (To-do) Fill-in-the-blanks

Based on your observation above, we can develop a stategy to find the number of modes. Fill in the blanks below.

"*To find the number of modes, we evaluate the (**Blank 1**) on a grid of points, and count the number of times it goes from (**Blank 2**) to (**Blank 3**).*"

Type your answer here, replacing this text.

0.2.1 4.b. For which values of k were you able to reject the null hypothesis? Did this match your expectation of the number of modes in the data based on looking at the initial histogram?

Type your answer here, replacing this text.