Homework Assignment 8
(Due Apr. 19th at the beginning of the class)

(1) **[Interconnect Optimization, 30 points]** The following net is given and we are supposed to insert buffers into the net to minimize the delay from the driver to the sink.

- Output resistance of the driver: R_o
- Input capacitance of the sink: C_S
- Output resistance of a buffer: R_o
- Input capacitance of a buffer: C_o
- Length of the net: L (um)
- Wire unit resistance: r (Ω/um)
- Wire unit capacitance: c (fF/um)

Find the # buffers and their locations.

Hint: 1. First, find the locations in terms of the number of buffers.

2. Then, find the number of buffers.

3. You don't need to express the location of each buffer as a function of the number of buffers.