Computational Geometry

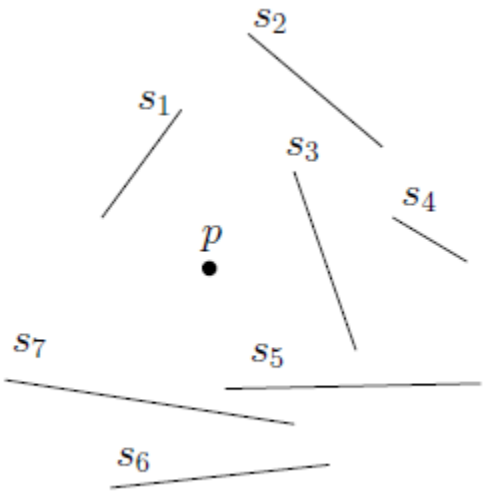
Spring 2019

Assignment #2

Points: 30

Last Date of Submission: 07-04-2019

Let *S* be a set of *n* disjoint line segments in the plane, and let *p* be a point not on any of the line segments in *S*. We want to determine all line segments of *S* that *p* can see, that is, every such line segment of *S* that contains some point *q* so the segment *pq* does not intersect any segment in *S* (except at *q*, of course). Write a program that will search the line segments that are visible by *p* in *O(n log n)* time.



For example, in the above figure, you should output all segments except s4 and s6.