Homework 8, Morally Due Tue Apr 17, 2018

1. (50 points) For all n show how to construct a set of $2^{n-2}+1$ points in general position such that no n of them for a convex n-gon. (HINT- the paper on the course website, under 'Erdos-Szekeres problem which we call the Klein Problem' is a survey of the Klein Problem. On page 442 is a construction that you want. READ it UNDERSTAND IT and PUT it in your OWN words.)

2. (50 points) Assume $n \geq 3$. Explain a search-scheme where the universe is $\{1, \ldots, 2n-2\}$ and the array is of size n, such that the probe algorithm uses just ONE probe. (HINT- The paper *Should Tables Be Sorted?* is on the class website. See page 612. READ it blah blah.)

3. (0 points) Trying to find the schedule for the Gathering For Gardner conference was hard to do so I typed in

   Gathering for Gardner Gasarch

   since I am ON the schedule. I didn't get the schedule, but I got something better: the talk I gave in 2016 at the conference is now on You Tube (all of the talks are). Even though its not musical, it's your *you must watch this but its 0 points* problem. The talk is on our course website- take a look.