

AoCMM 2016

Keep in mind that you are not expected to complete both problems. Try your best on one of them before moving on to the other, since prizes will be given to not only the teams that score the highest total of the two problems, but also the teams that place among the highest for one of the two problems.

1. You are running a presidential campaign in the United States as one of two candidates, and have the results from current polls indicating how well you are doing compared to your opponent in each state. The polls include the following information about each person who has taken the poll: which candidate they will vote for and how certain they are of their choice. Determine a strategy to divide your candidate's campaign finance resources to maximize their probability of success nationally.
2. Manhattan alone experiences over 50,000 vehicle collisions every year. Even worse, the response time of ambulances to crash sites still sits at over 9 minutes. As a result, the mayor of New York City has designated your team to manage more efficient ambulance routes from surrounding hospitals to crash sites and back. Take into account areas with more frequent accidents and consider all factors including number of ambulances needed, traffic jams, distance, etc.

Linked below is a spreadsheet containing all the recent collision data in Manhattan:

https://www.dropbox.com/sh/ygsslx8uum6c6qp/AAAGPh_tChxyy7QZENlhdpLW?dl=0