

Fall 2018: Barge Problem 6

Flipping for Handbooks

Jeff and Trent want to buy a copy of the handbook *Everything You Can Legally Do with R in the State of Pennsylvania*, which is published by the same company that published your Calculus text. Thus the handbook is obscenely expensive. They go to the Dean of Handbooks to ask for money to buy the book. The Dean is unimpressed but decides to give them at least some chance to get the money. She puts them in separate rooms so that no communication with each other is possible. She then gives each of them a fair coin. (Flip a fair coin and it come up heads exactly half the time.) She tells each of them the following: “I will return in one hour and ask each of you separately if you want to designate your coin. If neither of you designate your coins, you will not get the money. If exactly one of you designates your coin, I will flip it. If it comes up heads, you get the money, otherwise not. If both of you designate your coins, I will flip both of them. If both come up heads, you get the money, otherwise not. You have an hour to make your decisions.” What should Jeff and Trent do?

Semester Prizes (per team)

First Prize	\$1000
Second Prize	\$750
Third Prize	\$500

Rules

1. Form a team with other Lafayette students. Each team must have 3, 4 or 5 members.
2. Solve the Problem of the Week with your team. The problem will be posted in the Math Department and be available electronically for everybody on the Barge Mailing List.
3. Get your solution to Tom Yuster (yustert@lafayette.edu) by submission deadline. Email is the preferred method of submission, since Prof. Yuster has no intention of ever being in his office on Saturday at 6 a.m.
4. No internet or other online sources may be consulted during the process of solving the problem and/or submitting a solution. Failure to abide by this rule may result in disqualification of the team.

Submission Deadline: Saturday, Oct 27 at 6:00 a.m.