# 2014-15 University of Utah Undergraduate Problem Solving Contest 

Problem 3

Due November 26, 2014

Prove that every year has at least one Friday the $13^{\text {th }}$. Also, what is the maximum number of Friday the $13^{\text {th }}$ 's a given year can have?

In the spirit of UPSC, you should not use the internet or look up the solution in a book. Please include your name, student ID number, and email address on your solution. Grading will proceed more quickly if your final answer is written clearly at the beginning of the first page of your solution, followed by your work and justification.

