Mathletes Problem of the Week #7

Friday the 13th

This year, December contains a Friday the 13th, a date which some people consider unlucky. Just how often does this occur? Try working through the following problems about Friday the 13th!

    a) What day of the week does a month have to start on to have a Friday the 13th? Show how you know.

    b) Is it possible for two consecutive months to both have a Friday the 13th? If not, why not? If so, when? which months?

    c) How many Friday the 13ths can a year even have? Could a year have none? What is the smallest number possible? Could a year have 12? What is the largest number possible?

    d) At the end of this year, how many Friday the 13ths will we have had in the 2000's?

(Original problem from Association of Teachers of Mathematics)

Solutions & Explanations: (Try one or try them all! Record your solutions and explanations below and on the back.)

Name _____   Class _____

      (First and last name, please!)   **Solutions due: December 19th**