University of California, Los Angeles Department of Statistics

Statistics 13

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Birthday experiment

a. Access the Birthday Experiment (see below). Assume 365 days in a year. Suppose there are n people in a classroom. With the help of the applet, find the minimum value of n so that the probability that at least two people have the same birthday is more that 50%.

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Birthday Experiment			
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b. Suppose n = 40. What is the probability that at least two have the same birthday. You may be surprised to find that this probability is about 90%. Can you give a reason for that? Please show all you work.