

Name: _____

TA Name: _____

Secret Word: _____

Chapter 2, Exercise 5

4. There are n students in a class. Assume that each student's birthday is equally likely to be any of 365 days of the year, regardless of the birthdays of others.

(a) What is the chance that at least one of the students was born on January 1?

(b) What is the chance that at least two students have the same birthday?

Chapter 2, Exercise 4

5. A class has eight sections, five of which are in the morning and three in the afternoon. The instructor picks two sections at random without replacement.

Say whether each of the following statements is true or false, and justify your answer.

(a) The chance that the first section picked by the instructor is in the morning is $5/8$.

(b) The chance that the second section picked by the instructor is in the morning is $5/8$.

(c) The chance that both sections picked by the instructor are in the morning is $(5/8)(5/8)$.