Statistics 111   **Quiz 1**

1. Each assignment receives a letter grade. An A+ counts as 12, an A as 11, and so forth down to an F, which counts as 0.

   ⎯⎯⎯⎯⎯⎯ What is the numerical value for a C+?

   To find your final grade in this class, each component is multiplied by a weight and averaged. The quiz component has 20% weight; homework and labs components each count for 10%; the three best exams have equal weight.

   ⎯⎯⎯⎯⎯ There are 9 labs. You get to drop the lowest score. What is the weight (as a percentage) on one of the labs that counts?

   ⎯⎯⎯⎯⎯ Suppose that your quiz grade component is 8.2, your lab component is 9.4, your homework component is 9.1, and on your first three exams you got a B (i.e., 8). What is the lowest **letter** grade you would need on the last exam in order to get a A- for the semester? (Cutpoints are at the halves; e.g., the lowest A+ is 11.5.)

2. Suppose that at the end of the semester our class had taken eight quizzes. Your grades were A+, A+, A+, A-, B, B-, C, and E, where 'E' denotes an excused absence. What is the **numerical** value of your quiz grade component of the semester grade? (Remember: you are allowed two dropped quizzes and you replace excused absences by the average of *all* quizzes.)

3. Evaluate the integral of x^{-1} from 1 to 2. ⎯⎯⎯⎯

4. Evaluate $\int_0^1 \int_0^y xy\,dxdy.$ ⎯⎯⎯⎯

5. What is the value of $\sum_{i=0}^{\infty} (1/3)^i$?

6. What is the probability that, after drawing two cards, without replacement, from a standard deck of 52 cards, you find that both are red?

7. What is the probability that, after making two rolls with a fair (six-sided) die, you find that one or both of the rolls is greater than or equal to 5?