

Linguistics 696b  
Hammond  
Fall '00

### Take-Home Quiz

Things to remember:

- This is due at or before the beginning of class on Sept. 20.
- Show your work.
- Be legible, be clear.

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1. I have a hat with 20 numbered balls in it. You draw 5. How many ways can you do that?
  2. How many possible 5-letter words are there in English? (Assume 26 letters and that repetitions are allowed.)
  3. What are the chances of *not* drawing two aces off the top of a shuffled deck of cards?
  4. You draw three cards off the top of a deck. What are the chances that none of them are an ace *or* a spade?
  5. What is the expectation for throwing two dice?
  6. Assume that the goal is to throw a seven with two dice. What is the distribution over five attempts?
  7. Explain the “red card problem”. Specifically, why are your chances of getting the “red-red” card *not* 50-50?