

## STAT 221 Introduction to Probability and Statistics Winter 2012

### Quiz 2

Taken on Thur Jan 5. You may work with one partner, submitting one quiz with both names, provided that you both contribute to the work. You may use your notes.

Think about the coin-tossing simulation that we conducted with regard to the Sarah-the-Chimpanzee study. Choose the best answer for each of these questions.

1. Why did you toss the coin 8 times (as opposed to some other number of times)?
  - A. Because Sarah was presented with 8 problem scenarios
  - B. Because 8 is large enough to understand long-run patterns
  - C. Because 8 was the number that we happened to choose; any number would have worked fine
2. What was the assumption behind our simulation?
  - A. That Sarah was randomly guessing between the two photos
  - B. That Sarah had some ability to distinguish the problem-solving photo
  - C. That Sarah had a perfect ability to distinguish the problem-solving photo
3. What did a coin flip that landed Heads represent?
  - A. A correct choice by Sarah
  - B. An incorrect choice by Sarah
  - C. That Sarah had some ability to distinguish the problem-solving photo
  - D. That Sarah had no ability to distinguish the problem-solving photo
4. What were the observational units in the graph that you put on the board and also in the applet's graph?
  - A. Problem scenarios
  - B. Photos
  - C. Sets of 8 coin tosses
  - D. Chimpanzees
5. We decided that the data provided strong evidence that Sarah did have some ability to distinguish the problem-solving photo. Why?
  - A. Because 7 out of 8 is more than 50%
  - B. Because the simulation showed that it is *not surprising* for her to get 7 or more right out of 8 if she were randomly guessing
  - C. Because the simulation showed that it *is surprising* for her to get 7 or more right out of 8 if she were randomly guessing
  - D. Because the simulation showed that it *is impossible* for her to get 7 or more right out of 8 if she were randomly guessing
  - E. Because "Sarah" and "simulation" begin with the same letter