Quiz 3: Null model, simulation, strength of evidence, p-value

Taken on Fri Jan 10. You may work with one randomly assigned partner, submitting one sheet with both names, provided that you both contribute to the work. You may use your text/notes.

Select the best of the three options for each question about the “infant toy” study.

1. What was the null model?
   A. That infants chose between the two toys at random
   B. That infants had a genuine preference for the nice toy
   C. That infants had a .875 probability of selecting the nice toy

2. What was the approximate p-value?
   A. .002
   B. .500
   C. .875

3. What conclusion did we draw?
   A. Strong evidence that infants chose randomly and had no toy preference
   B. Strong evidence that infants had genuine preference for nice toy
   C. Not much evidence for either the randomness or the genuine preference explanation

4. What was the reasoning behind our conclusion?
   A. If infants had chosen toys at random, it would have been very surprising to find 14 or more infants who selected the nice toy.
   B. If infants had chosen toys at random, it would have been very likely to find 14 or more infants who selected the nice toy.
   C. If infants had chosen toys at random, it would have been very likely to find 8 infants who selected the nice toy.

5. If only 10 of the 16 infants had chosen the nice toy rather than 14, what would have happened to the p-value?
   A. The p-value would have been smaller.
   B. The p-value would have been larger.
   C. The p-value would not have changed.