

STAT 221 Introduction to Probability and Statistics Winter 2012

Quiz 15

Taken on Wed Feb 8. You may work with a group of as many as 4 students, submitting one quiz with all names, provided that you all contribute to the work. You may use your notes. Also, please include your section number (8am: section 2, 9am: section 3) and “quiz 15” along with your name(s).

1. Does the dolphin therapy study involve random sampling?
2. Does the dolphin therapy study involve random assignment?

Many studies have shown that babies born to women who smoked while pregnant tend to weigh less at birth than babies born to mothers who did not smoke while pregnant. Questions #3-5 pertain to these studies.

3. Identify the explanatory variable in these studies.
4. Identify the response variable in these studies.
5. While it's possible in principle to conduct a randomized experiment to investigate this issue, it would be unethical to conduct such a randomized experiment. Explain why, as if to someone who has never studied statistics.