

STATISTICS 1040
Quiz 1, Fall 2014

Name _____
Recitation Instructor _____ Time _____

1. A new medicine called FROVA has been approved for treatment of migraines. In a randomized, controlled, double-blind study of over 1000 migraine sufferers, 46% of the FROVA group experienced migraine relief whereas only 27% of the placebo group experienced migraine relief.

a) What is a *randomized, controlled* experiment? (2 points)

b) What is a *placebo*? (2 points)

c) What does *double-blind* mean? (2 points)

2. The following information came from FOX NEWS:

Drinking red wine not only reduces your risk for cardiovascular disease, but it may also reduce your risk for lung cancer, especially if you are a current or ex-smoker, Reuters reported Thursday. People who do or have smoked and drink at least one glass of wine each day are 60 percent less likely to develop lung cancer than those who have smoked and don't drink red wine.

a) Is this a controlled experiment or an observational study? Explain. (2 points)

b) Clearly explain how socioeconomic status could be a confounding factor in this study and why this might make you doubt their conclusion? (2 points)