1. Cassandra wants to know if the mean blood pressure is different in smokers and non-smokers. She collects blood pressure measurements from 50 smokers and 50 non-smokers, and tests for a difference in average blood pressure at a 5% significance level.

t = -2.8018, df = 98, p-value = 0.006124

1a. Is average blood pressure different in smokers and non-smokers? Why?

1b. If your conclusion in 1a. is incorrect, what type of error are you making?

1c. What is the probability you made this kind of error in 1b.?

1. She repeated the study with 100 new study subjects and obtained the following result:

Results: t = 1.4912, df = 98, p-value = 0.1391

2a. Is average blood pressure different in smokers and non-smokers? Why?

2b. If your conclusion in 2a. is incorrect, what type of error are you making?