Lab Assignment #12

This lab is due at 9:35 AM on Wednesday, 3/6 and is worth 6 points. This may be done individually, or in a group of 2 or 3 people.

Write each probability answer as a fraction, or a decimal to at least 3 significant digits, or a percent to at least 3 significant digits. Show work.

1) Suppose that 45% of cell phones are iPhones. Suppose also that 90% of iPhone users are satisfied with their phone, compared to 73% of all cell phone users who are satisfied with their phone. What percent of non-iPhone users are satisfied with their phone? Show work please.

2) In a group of one thousand college students, 59 have statitis, and 941 are free of this terrible disease. Of the 59 people with the disease, 50 test positive, and 9 test negative. For the students free of statitis, 923 test negative, and 18 test positive.

a) What percent of people with statitis test positive for it?

b) What percent of people without statitis test negative for it?

c) What percent of positive tests are correct?

d) What percent of negative tests are correct?

3) During a 3-day-sale at EV Walley's, there were 450 customers on Friday, and 58% of them spent over $100; there were 979 customers on Saturday, and 81% of them spent over $100; and there were 322 customers on Sunday, and 51% of them spent over $100.

a) What percent of all customers during the 3 days spent over $100?

b) What percent of customers who spent over $100 shopped on Sunday?

4) At a car store there are 2,300 cars for sale. Some of the cars are new (68%) and the rest are used (32%). Only 11% of the new cars are blue, but 29% of the used cars are blue.

a) What percent of all the cars for sale are blue?

b) What percent of blue cars are used?

c) Why did people start saying "preowned" instead of "used"?

5) Data for houses in Central Dogtown are provided below.

	Below $400K	$400K to $500K	more than $500K
One story	179	387	412
Two story	89	355	515

a) What fraction of all houses are two story?

b) What fraction of expensive houses (more than $500K) are two story?

c) What fraction of all houses are more than $500K

d) What fraction of two-story houses are more than $500K?