Homework 3

Name:_____

Date:_____

This assignment requires SAS. Please answer Questions 1-4 by hand.

Needles are one of the most commonly shared drug supplies among users. Is there an association between sharing needles to inject drugs and contracting HIV? A survey was conducted on 100 users. **Use the table below to answer questions 1-4.**

	Positive for HIV	Negative for HIV
Share needles	32	18
Do not share needles	10	40

Question 1. Calculate the expected contingency table.

Question 2. Calculate the chi-square test statistic.

Question 3. What is the p-value based on the chi-square test?

Question 4. What is the conclusion from the chi-square test?

The data set in the table below is based on 214 children with acute otitis media (OME) who participated in a randomized clinical trial. Each child had OME at the beginning of the study in either one or both ears and was randomly assigned to receive a 14-day course of one of two antibiotics either celfaclor (CEF) or amoxicillian (AMO).

Table 3.11 Format for EAR.DAT

Column	Variable	Format or code
1–3	ID	
5	Clearance by 14 days	1 = yes/0 = no
7	Antibiotic	1 = CEF/2 = AMO
9	Age	1 = < 2 yrs/2 = 2–5 yrs 3 = 6+ yrs
11	Ear	1 = 1st ear/2 = 2nd ear

Import the EAR dataset in SAS to answer the questions below.

Question 5. What is the distribution regarding age in the dataset? Please provide a contingency table (with count and percent) to show the distribution of the variable. Paste results from SAS here.

Test whether there is an association between medication received. Is there a clearance of infection by 14 days? Use the information to answer questions 6-9.

Question 6. Perform a chi-square test and provide the contingency table from the test and

paste the results from SAS here.

Question 7. What is the chi-square test statistics?

Question 8. What is the p-value?

Question 9. What is the conclusion?