Module 1C Questions:

1. When is it appropriate to use Chi-Squared tests?
    a. When you are determining if two categorical variables are associated.
    b. When you are directly comparing proportions
    c. When your number of independent data points is less than 5
    d. When you are looking for an exact P value.
2. A chi-squared test statistic on a contingency table that is equal to zero means:
    a. The two nominal variables have values consistence with independence.
    b. The two nominal variables have values that are consistent with equality.
    c. The two nominal variables have the same proportions listed in Ho.
    d. All these choices.
3. ***What would a chi-square contingency test resulting in a significance value of P > 0.05 suggest?***
    a. We cannot reject the hypothesis of independence between the two variables
    b. We cannot reject the hypothesis of dependency between the two variables
    c. There is a significant relationship between the two variables
    d. We can reject the hypothesis of dependency between the two variables

4. Researchers are investigating whether **strain** is associated with the likelihood of developing **hyperglycemia** after a 12-week dietary intervention. The data below summarize outcomes for 30 mice from two strains. Conduct the appropriate hypothesis test and determine if:

    - Does strain appear associated with hyperglycemia?
    - Does B6 appear more susceptible than BALB/c?

Strain	**Hyperglycemia (Yes)**	**Hyperglycemia (No)**	**Total**
B6	8	12	20
BALB/c	2	8	10