Module 1B Questions:

1. Conduct a complete Hypothesis test on the following: Let Mutations_per_kb be the number of mutations in C57BL/6J in spermatogonia. You sequence **100** independent 1 kb regions from different cells and record the number of independent mutations in each region. You summarize your data in the table below.

   Does the assumption of a Poisson distribution seem appropriate as a model for these data or not? If we reject the Poisson model, what biological explanations might you consider and why? If we do not reject the Poisson model, what assumptions are we implicitly comfortable with?

Mutations_per_kb	Observed_Count
0	14
1	20
2	26
3	18
4	12
5	6
6	4

2. Rejecting a null hypothesis of a Poisson distribution of successes implies that

   A- Success are not independent

   B- The probability of a success occurring is constant over time or space.

   C-The probability of a success occurring is NOT constant over time or space.

   D- A and B

   E- A and C