

STAT 334 - Fall 2022 - Assignment 1

Due Friday Oct 7 by 11:59 pm

This assignment may be completed in pairs. You should create a group on Crowdmark and make one submission. Both people will receive the same grade. If you're not sure how to do some of the parts, I have included references to the videos and times where the technique can be found.

1. Question 1 omitted
2. Question 2 omitted
3. Question 3 omitted

4. [10 marks] **Probability Models Inventory**

A great way to strengthen the skill of identifying which model to use is to make up examples to help you remember which is which. For each of the following concepts, fill in a situation (or two) that can be your go-to example of it. It's OK to use examples we've used in class if they are very memorable to you, but it's better if you can think of one yourself.

Concept	Your Personal Example(s)
Mutually Exclusive Events	
Independent Events	
Conditional Probability	
Partition Rule	
Bayes' Rule	
Bernoulli Trials	
Binomial RV	
Geometric RV	
Negative RV	
Poisson RV	
Uniform RV	
Exponential RV	
Gamma RV	
Normal RV	
Multinomial RVs	
Multivariate Normal RVs	

5. [10 marks] Reflective questions (if you submit this assignment in pairs, each person must provide a separate answer to this question and be sure to indicate whose is whose.) Your response to each part below should be a short paragraph (3-5 sentences.)
- (a) How are you progressing on your goals for the course? Do you have any new ones?
 - (b) The first five videos were review of STAT 230. Looking back at the thing(s) that confused you most about probability, pick one and explain it in plain language that a non-math major would understand. If you are still confused, what strategies/resources can you use to understand it?
 - (c) What are the most interesting things you learned (or re-learned) from the first seven videos? Pick one and give an example of how it relates to your life, program, career, or interests.