STAT 2507 - Lab 6

October 29th, 2019

To access these slides...

https://www.github.com/melissavanbussel

Reminder: Accessing Minitab

If you ever log onto the computers in this room and Minitab is not installed, or if you want to use Minitab at home, complete the following steps:

1. Make sure you're connected to Carleton's network. If you're not (i.e., if you're using your own computer and not a Carleton computer), follow the steps on this page: https://carleton.ca/its/help-centre/remote-access/vpn-for-windows-10/
2. Search for "Remote Desktop Connection" in the Windows 10 search bar
3. Connect to itsrds01.cunet.carleton.ca (using your username and password for cuLearn; if you're on your own computer, you might need to start your username with "cunet\")
4. **Make sure you log out of the connection at the end.** Otherwise, other students will not be able to use Minitab. Do this the same way you would on a regular computer.

Today's Lab

- Review: Poisson Distribution
- Question 2 of Assignment 3
- Mid-Semester Feedback Survey
- Comments on Assignment 2
- Leftover time: you may work independently on assignment 3 and ask any questions you might have.

Poisson Distribution

- A Random Variable (RV) drawn from a Poisson Distribution is a **discrete** random variable.
- Represents the number of occurrences of a specific event in a specific time interval (or other unit of measurement, such as volume or area).
    - The number of customers that arrive in a store between 10am and 11am
    - The number of machine breakdowns that occur on October 29th, 2019
- The probability of the specific event occurring is the **same** for any two intervals of the same length
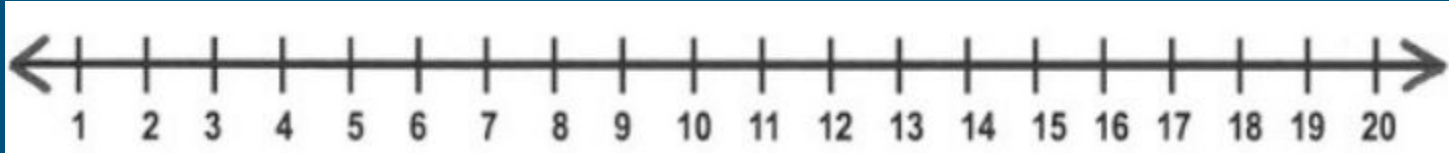
Poisson Distribution

- The parameter of the distribution is λ, which represents the **average rate** of the event's occurrence. It stays constant throughout the experiment.
  - Note: sometimes people will use μ to represent this
- Example: The average number of car accidents on the 417 per week is 2.
  - Here, λ = 2.

Question 2 of Assignment 3

We're given the CDF, which is P(X ≤ x), for each value that x can take.

a) P(X < 10)
b) P(X = 10)
c) P(15 ≤ X ≤ 20)

Reminder: Include your Minitab output! You **will** lose marks otherwise.

Mid-Semester Feedback

Please use this form to submit (informal) feedback regarding the course so far. It's anonymous and optional, but I would really appreciate it! I can improve the labs this way. No one will read this other than me.

https://forms.gle/eUGHYwcNk8iwDP7fA

Assignment 2 Comments

- General comment: make sure you read the full question and answer **all** parts. Many people forgot to answer some of the parts on each question.
- When a question says "comment on" -- make sure you comment! If it's worth more than one mark, make sure you have more than one mark's worth of comments.
- Make sure you show ALL of your work - I can't give you part marks if all you write is your final answer, and it's incorrect. The marking scheme allocates a lot of marks for **showing your work.**
- These comments apply to the midterm as well.

Good luck on your midterm! You will do great :)