Introductions

- What would you like us to call you?
- Where are you in your education? What program are you in? How far along are you?
- What is your background with probability and using R? What are your feelings about this course (excited, scared, indifferent)?
- What topic are you most excited about for this course?

Breakout Session 1

- Introduce yourselves again. Share your contact information with your group. Make a new friend.
- Was there anything that didn't make sense that you need clarified? If one of your group mates can't clarify it for you, you should ask when we come back together as a whole group.
- In your own words describe:
    - Probability
    - Statistics
    - The relationship between probability and statistics

- Give a contextual example, in words, of one of DeMorgan's laws. You should be using words like "and", "or" and "not".

- Describe to someone when to use the Multiplication Rule, when to use Combinations and when to use Permutations.

- In your own words, describe the Law of Total Probability.

Breakout Session 2

- Introduce yourselves again. Share your contact information with your group. Make a new friend.
- Problem:

In the last election, voters were asked to determine if a new tax should go into place to support higher teacher pay and better resources for students. In the table below, we have the breakdown of how the town voted on the issue versus their registered voting status.

	Yes	**No**	**Total**
Democrat	0.405	0.045	0.45
Republican	0.16	0.24	0.40
Independent	0.105	0.045	0.15
Total	0.67	0.33	1

1. Find $P(Yes|Republican)$.

2. Create the tree diagram where registered voting status is the first tier, and how they voted on the issue is the second tier.

3. Determine if registered voting status, and how people voted on the issue are independent. Provide 2 ways that you know.

4. Explain the difference between P(Democrat|Yes) and P(Democrat AND Yes).