



Assisting Antwon – Part 2 – Probability Tree

Primary DQ Element: Sound Reasoning and Information

Time Required: 20 Minutes

Learning Outcomes:

Students will recognize they can:

- Interpret a complex decision tree
- Reason through the math of a tree when provided
- Calculate complex joint probabilities
- Use decision trees for understanding important and difficult decisions that have uncertainty

Students will apply these concepts to a decision made by a student who was a little younger than they are who had a big decision with a big impact on his life.

Materials Needed:

- ☐ Previously, students watched the video of Antwon's story (<https://youtu.be/M55AQ7N9oQM>)
- ☐ StrongStart Workbook open to the Assisting Antwon – Probabiliti page
- ☐ The instructor and the facilitators have a copy of the workbook page with the answers in the page to help them ensure the students understand - all the math is there for the students, if they look closely and don't shut down - that may be one of the most important lessons that is not a core objective! Hang with it and see what information you have to solve a complex decision -resilience!

Instructions:

- Basic overview – walk the students through the workbook page where the decision Antwon made is mapped and help them fill in the numbers/understand the calculations.
- Remind students of the video with Antwon that they watched on day 2. What was Antwon's story?
- *WHAT IS A KEY PIECE OF INFORMATION THAT ANTWN NEEDED IN ORDER TO MAKE HIS DECISION?*
 - *THE PROBABILITY OF MAKING IT TO THE NFL. LET'S CALCULATE THAT.*
- Walk the students through the tree that calculates the probability of playing in the NFL, given that someone plays in high school - how high is that probability?
 - Not high at all, less than 1/1000





- *DO YOU THINK THAT ANTWON WAS AWARE OF THIS? DO YOU THINK THAT HE MIGHT HAVE FACED SOME DECISION TRAPS? WHICH ONES? HOW DO YOU THINK MAKING THE CALCULATIONS HELPS?*
- *ANSWER THE QUESTIONS ABOUT NICO'S STORY IN THE VIDEO.*

Debrief:

- *DO YOU THINK THAT YOU WOULD HAVE CONSIDERED THE PROBABILITIES OF MAKING THE NFL IS IT WAS YOU IN ANTWON'S PLACE?*
- *WHEN HAVE YOU MADE A DECISION FOR WHICH YOU WISH YOU HAD BETTER CALCULATED THE PROBABILITIES OF OUTCOMES?*
- *HAVE YOU BEEN IN A TRICKY SOCIAL SITUATION LIKE NICO'S IN WHICH YOU'VE BEEN UNSURE OF THE "TRUTHS" YOUR FRIEND HAS TOLD YOU?*

