
Extra Credit Projects

Choose a project that interests you!

Extra credit projects are eligible for up to 20 extra credit points depending on their depth and quality. You may choose one of the following project ideas. **You may also propose your own extra credit project.** It needs to be related to Pokémon® GO and at least one of the mathematical topics we have covered in class.

Some ideas

1. Read an article relating to Pokémon® GO. Write a short summary of the article and propose a change in the game. Your proposal could make the game more fun, more interesting, more accessible, more profitable, or something of your choice. Your argument for the proposal should use an argument from the article and at least one mathematical idea from this class.
2. Each of the core games has a story. Write a “story mode” for the course. Why does our hero want to learn sets and functions, probability, and then rates of change? Has a team of villains come to Iowa City?
3. In the core games when you succeed at certain tasks, you earn a “gym badge”. Design a set of gym badges that reflect the theme of each HW assignment (some like: Sets, Venn Diagrams, Functions, Probability, Conditional Probability, Statistics, Linear Functions, and Rates of Change). Each is a small “logo-like” drawing. Here are examples from the core games: https://pokemon.fandom.com/wiki/-Gym_Badges
4. One of the concerns that has been raised about Pokémon® GO is that it is less accessible for gamers with disabilities and/or mobility issues. Come up with a way to make the game more accessible to players with disabilities. Write a proposal to send to the creators of Pokémon® GO. Your argument for your proposal should include at least one of the mathematical ideas from this class.
5. Walk for a mile downtown, in a park, and near a body of water. Record every Pokémon® that you see. Write a summary of your findings. Include graphics and mathematical language.
6. 1.28 or 1.3? What is the exact Trainer Battle bonus in the damage calculations? The internet is not sure. Design and execute an experiment that could detect the difference.
7. Write a theme song! Submit the recording and a text copy of your lyrics.

8. Investigate Team GO Rocket. How do Rocket battles differ from other trainer battles? Build your teams to defeat the leaders and the boss!

9. Raid battles. Investigate the dynamics of these special battles. Pick on Pokémon[®] matchup to compare and contrast with trainer battles.

10. Your own idea! Talk with your instructor about what you want to do!