Homework 2/12–16

(1) For each of the following, write the Bohemian number that comes before and after.

\[
\begin{align*}
\bigstar, !@, \bigstar & \quad \bigstar, !\text{@}, \bigstar \\
\bigstar, $$, \bigstar & \quad \bigstar, !\text{@}, \bigstar
\end{align*}
\]

Translate the following Arabic numbers to Bohemian numbers, and Bohemian numbers to Arabic.

\[
\begin{align*}
23 = & \quad 57 = \quad 85 = \\
\bigtriangleup \# = & \quad \heartsuit \text{@} \text{=} \quad \text{\$} \bigstar =
\end{align*}
\]

(2) Bohemians, in their spare time, like to put M&M’s in circles and write the number of M&M’s in both circles on a card between them. Below is an example:

Unfortunately, a Bohemian ate all the M&M’s in the circles below. Reconstruct how many M&M’s were in each circle.

(3) One of the players in a game of Bohème will never lose, no matter how clever the other player is. Play the game of Bohème until you figure out which player can win, and how they can guarantee that they don’t lose. Write a careful description of the strategy you use to never lose. Do you want to go first or second? Explain your strategy clearly enough so that a fellow student could follow your instructions. **EXTRA CREDIT:** Explain why your plan handles *all* possible counter-strategies your opponent might use.

(4) Write an essay reflecting on your learning Bohemian numbers. Mention some things that are hard about the process, and what they suggest about kids’ learning of our Arabic numerals.