

1155-11-211 **Helen G. Grundman*** (grundman@brynmawr.edu). *An Overview of Sets Arising from Happy Numbers and Their Generalizations.*

In this talk, I will define happy numbers and various types of generalized happy numbers, providing some interesting properties of these sets. I will then define augmented generalized happy functions, and discuss some properties of the corresponding sets of numbers, of the sets of fixed points, and of newly defined sets of integers arising from consideration of these fixed points. My goal is to give an overview of what is known and, in some cases, general ideas behind the proofs. (Received January 13, 2020)