To be a good problem solver, it is important to be able to break problems down. One way to go about this is to write out the steps it will take to solve the problem. These steps are written down in English in a manner that are easily explainable to someone who may not be technical. The idea is that in order to code something out, you first need to have a good understanding of what it is you are attempting to solve.

For each of the three problem solving problems below, write out the steps it will take to go about solving the problem. For example, once you are done writing out the steps for the “happy numbers” problem, you would then write out the code to solve the problem. You would then repeat the process for each ensuing problem. Ideally, this will be a good habit that you will develop and carry forward with you for all problems you encounter at devCodeCamp and beyond.

1. Happy Numbers
   1. <https://en.wikipedia.org/wiki/Happy_number>
   2. A happy number is a number defined by the following process: starting with any positive integer, replace the number by the sum of the squares of its digits, and repeat the process until the number equals 1. An example of a happy number is 19
   3. Write a method that determines if a number is happy or sad
2. Prime Numbers
   1. A prime number is a number that is only divisible by one and itself.
   2. Write a method that prints out all prime numbers between 1 and 100
3. Fibonacci
   1. A series of numbers in which each number (*Fibonacci number*) is the sum of the two preceding numbers. The simplest is the series 1, 1, 2, 3, 5, 8, etc.
   2. Write a method that does the Fibonacci sequence starting at 1
   3. HARDER VERSION: Write a method that does the Fibonacci sequence starting at a number that a user inputs