1. Write a program that takes an integer n, reads in n - 1 distinct integers between 1 and n, and determines the missing value.

2. Write a program that reads in a sequence of integers and prints both the integer that appears in a longest consecutive run and the length of that run. For example, if the input is “1 2 2 1 7 8 8 6 6 6 6 6 3”, then your program should print “Longest run: 5 consecutive 6s”.

3. Write a program that takes an integer n, reads in n integers, and prints the n integers in random order.