1. We worked together to design a program to simulate playing the game of Lucky Sevens (Project 11 from Chapter 3.) until the user runs out of money. At that point, the program prints the number of rolls it took to break the player, as well as maximum amount of money in the pot.

We pretty much wrote the following program with the function `playTheGameUntilPotIsGone` remaining to be completed. (I had to guessing at the function name we used in class--I did not write them down...)

```python
import random

def main():
    printWelcomeAndRules()
    initialPot = getInitialPot()
    numGames, maxPot = playLuckySevensUntilBreak(initialPot)
    printSummary(numGames, maxPot)

def printWelcomeAndRules():
    print "Welcome to Lucky Sevens Simulator!\n"
    print "We'll simulate you playing games of Lucky Sevens\n"
    print "until you lose all of your money.\n"
    print "After the simulation, we'll print the number of rolls\n"
    print "the maximum amount of money in the pot.\n"

def getInitialPot():
    initialPot = input("Enter the amount of the initial pot: ")
    return initialPot

def playLuckySevensUntilBreak(pot):
    print "%-5s%10s%-5s%10s" % ("Game", "Starting".center(10), "Dice", "Ending".center(10))
    print "%-5s%10s%-5s%10s" % ("#".center(5), "Amount".center(10), "Total", "Amount".center(10))
    print "-"*30
    gameNumber = 0
    maximumPot = pot
    while pot >= 1:
        main()
        raw_input("Hit any key to close")
```
2. We want to write a program to display all of the prime numbers from 1 through 100. A prime number is a number that is only evenly divisible by itself and 1. For example, the number 5 is prime because it can only be evenly divided by 1 and 5. However, the number 6 is not prime since it can be evenly divided by 1, 2, 3, and 6.

Read the specifications carefully. Try to identify:

a) What would the user’s interaction with the program look like?

b) We want the main function to act as an outline of the program and contain at most:
   • the “main loop”: What would be the main loop for this program?

   • function calls to perform difficult subproblems. What high-level subproblems does our program need to perform? (Think about what arguments each subprogram needs to be passed or user input needed, and what type of information is returned to the caller)