For each program that you turn in be sure to include:

> Your name and the date on which the assignment was completed.
>
> Well-placed comments indicating what your program does (or should do). While it may seem silly for trivial code, it is proper programming etiquette and a good habit to get into.
>
> If you use any source other than the course textbook – that includes Google, YouTube videos, Tutors, Mentors, etc. - be sure to cite the source in your code. Failure to do so is a violation of the Academic Integrity Policy and can result in a failing grade and/or dismissal from the college.

Points will be deducted for failure to adhere to these guidelines.

Create a program called “thirteenth.py”. Complete Chapter 5, Programming Exercise 20 on page 283.

Create a program called “fourteenth.py”. A lazy programmer created a program "lazy.py". He says that it works for "This is correct", but has a logical error with the phrase "Everything else should too". Determine what this program is doing by trying a number of different phrases and evaluating the resulting output. Add appropriate comments to the existing code. Finally, fix the program to remote the logical error with the phrase "Everything else should too".

Create a program called “fifteenth.py”. The object of this assignment is to write a program that allows the user to challenge the computer to a game of Pick-Up Sticks. Here is how the game is played. The user chooses the number of matchsticks (from 5 to 40) to place in a pile. Then, the computer chooses who will go first. At each turn, the contestant can remove one, two or three matchsticks from the pile. The contestant who removes the last matchstick loses.

The computer should make the user always select from a pile where the number of matchsticks has a remainder of 1 when divided by 4. For instance, if the user initially chooses a number of matchsticks that has a remainder of 1 when divided by 4, then the computer should have the user go first. Otherwise, the computer should go first and remove the proper number of matchsticks. [Note: The remainder when n is divided by 4 is (n % 4).] After writing the program, play a few games with the computer and observe that the computer always wins.

I have uploaded “puSticks.py” which contains code for everything except for the player and computers turns. If easier, you can also write the complete program from scratch.