

## CS 120: Chapter 6 Lab

1. Write the `sumN` function to complete this program:

```
# sumn.py

def sumN(n):
    # returns the sum of numbers from 1 through n

def main():
    print("This program returns the sum of the natural"
          "numbers from 1 to n.")

    last = int(input("\nEnter the value of n: "))
    print("The sum is:", sumN(last))

main()
```

2. Write the `grade(score)` function to complete this program (see programming exercise 2 on page 171):

```
# quizgrade.py

def grade(score):
    # returns the letter grade (a character) corresponding to score
    # 5:A, 4:B, 3:C, 2:D, 1:F, 0:F.

def main():
    print("Quiz Grader")

    s = int(input("Enter the score (0--5): "))
    print("Grade:", grade(s))

main()
```

Hint: use string indexing to do this.

3. Write the `main` function to complete this program for generating acronyms (see Programming Exercise 4 from Chapter 5):

```
# acronym.py

def acro(phrase):
    ans = ""
    for word in phrase.split():
        ans = ans + word[0].upper()
    return ans

def main():
    # Get a phrase from the user and print out its acronym
```

4. Write the `moveTo` function to complete this version of the `jumpy` (from our graphics lab) program:

```
# jumpy.py

from graphics import *

def moveTo(obj, newcenter):
    # moves obj so its center is newcenter

def main():
    window = GraphWin("Click Window", 400, 400)
    shape = Circle(Point(50, 50), 20)
    shape.setOutline("red")
    shape.setFill("red")
    shape.draw(window)
    for i in range(10):
        p = window.getMouse()
        moveTo(shape, p)
    window.close()

main()
```