|  |
| --- |
| Lab 4.3: Working with functions |

# **Q 1: Caught speeding**

You are driving a little too fast, and a police officer stops you.

Write code to compute the result, encoded as an int value: 0=no ticket, 1=small ticket, 2=big ticket. If speed is 80 or less, the result is 0. If speed is between 81 and 100 inclusive, the result is 1. If speed is 101 or more, the result is 2. Unless it is your birthday -- on that day, your speed can be 5 higher in all cases.

caught\_speeding(80, False) → 0  
caught\_speeding(85, False) → 1  
caught\_speeding(85, True) → 0

def CaughtSpeed(Speed,Birthday):

if((Speed<=80 and Birthday==False) or (Speed<=85 and Birthday==True)):

value=0

return value

elif(((Speed>=81 and Speed<=100) and Birthday==False) or ((Speed>=81 and Speed<=105) and Birthday==True)):

value=1

return value

if((Speed>=101 and Birthday==False) or (Speed>=106 and Birthday==True)):

value=2

return value

print(CaughtSpeed(80,False))

print(CaughtSpeed(85,False) )

print(CaughtSpeed(85, True))

output:

0

1

0

# **Q 2: Count even elements**

Return the number of even ints in the given list. Note: the % "mod" operator computes the remainder, e.g. 5 % 2 is 1.

* count\_evens([2, 1, 2, 3, 4]) → 3  
  count\_evens([2, 2, 0]) → 3  
  count\_evens([1, 3, 5]) → 0

def Count\_Even(list):

count=0

for i in list:

if(i%2==0):

count=count+1

return count

print(Count\_Even([2,1,2,3,4]))

print(Count\_Even([2,2,0]))

Count\_Even([1,3,5])

Output:

3

3

0