Validating / debugging code - Solutions

1. **Tricky Twelve Times Tables**
   ```python
   for i in range (1, 13):
       print(str(i) + "x12=", 12*i)
   ```

2. **Logical Lights**
   ```python
   lightOn = isDark and motionDetected
   ``

   **More Logical Lights**
   ```python
   lightOn = isDark and (motionDetected or beforeMidnight)
   ```

3. **Loopy Navigation**
   ```python
   answer = "no"
   while answer != "yes":
       answer = input("are we there yet? ")
   print("we have arrived at last!")
   ```

4. **Spot that Leap Year**
   ```python
   def leapYear(year):
       if year % 4 == 0 and year % 400 != 0:
           return True
       else:
           return False
   ```

5. **The Longest List**
   ```python
   maxN = 0
   maxL = []
   for l in shopping:
       if len(l) > maxN:
           maxN = len(l)
           maxL = l
   print('the longest list is ')
   for item in maxL:
       print(item)
   ```

6. **If I were you...**
   ```python
   name = input('what’s your name?’
   if name == 'jeremy':
       print('what a great name!)
   else:
       print('if only your name was jeremy!')
   ```
7. Dodgy Dictionaries
first = input('enter a roman numeral')
second = input('and another roman numeral')
answer = roman[first] + roman[second]
print('the answer is', answer)

8. Correct Change
def giveChange(amount, coins):
    change = []
    for c in coins:
        while amount >= c and amount>0:
            amount = amount-c
            change = change + [c]
    return change

9. Superhero Stars
f = open('reviews.txt', 'r')
max = 0
superhero = ''
for line in f:
    if '*' in line:
        hero=(line.split())[0]
        stars=(line.split())[1]
        n = 0
        for c in stars:
            if c=='*':
                n = n+1
                if n > max:
                    max = n
                    superhero = hero
print(superhero + ' has ' + str(max) + ' stars')
f.close()