

Validating / debugging code - Solutions

1. Tricky Twelve Times Tables!

```
for i in range (1,13):  
    print(str(i)+"x12=", 12*i)
```

2. Logical Lights

```
lightOn = isDark and motionDetected
```

More Logical Lights

```
lightOn = isDark and (motionDetected or beforeMidnight)
```

3. Loopy Navigation

```
answer = "no"  
while answer != "yes":  
    answer = input("are we there yet? ")  
print("we have arrived at last!")
```

4. Spot that Leap Year

```
def leapYear(year):  
    if year % 4 == 0 and year % 400 != 0:  
        return True  
    else:  
        return False
```

5. The Longest List

```
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...

```
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
n = 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()
```