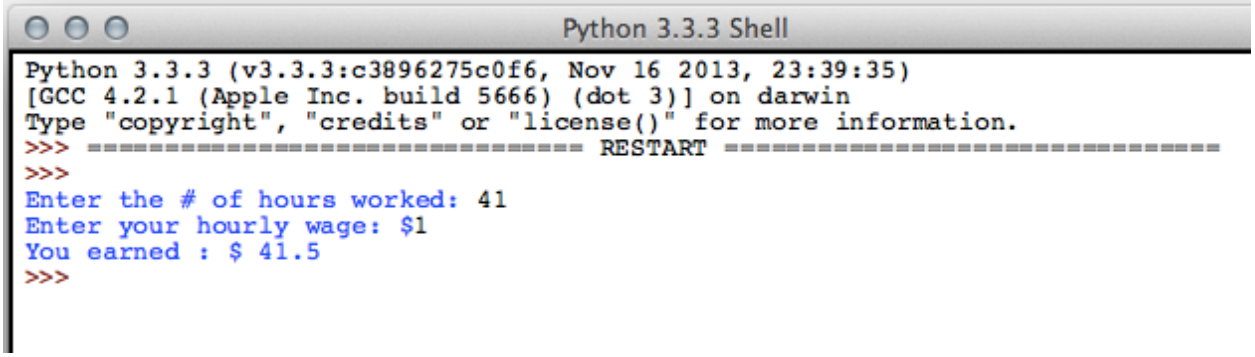
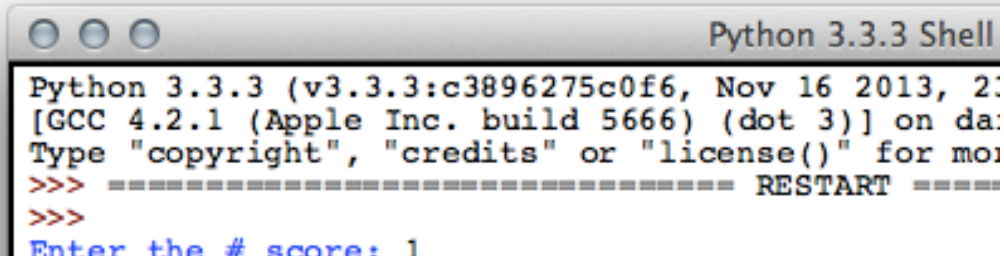
Problem 1:

```
#problem1 ch 7
def main():

    hoursWorked = eval(input("Enter the # of hours worked: "))
    wage = eval(input("Enter your hourly wage: $"))
    if hoursWorked > 40:
        pay = wage*40
        pay += (hoursWorked - 40)*(wage*1.5)
    else:
        pay = hoursWorked * wage

    print ("You earned : $", pay)

main()
```



Problem 2:

```
#ch7 prob2
def main():
    numGrade = eval(input("Enter the # score: "))
    letterGrade = "error"
    if (numGrade <=0) or (numGrade >=5):
        print ("Invalid score, yo")
    else:
        if numGrade==0:
            letterGrade = "f"
        elif numGrade == 1:
            letterGrade = "d"
        elif numGrade == 2:
            letterGrade = "c"
        elif numGrade == 3:
            letterGrade = "b"
        elif numGrade == 4:
            letterGrade = "a"
        print ("the letter grade of",numGrade,"is: ",letterGrad

main()
```



Problem 3:

```
#ch7 prob3
from math import *
def main():
    numGrade = eval(input("Enter the # score: "))

    letterGrade = "error"
    if (numGrade <=0) or (numGrade >=100):
        print ("Invalid score, yo")
    else:
        if numGrade <= 60:
            letterGrade = "f"
        elif numGrade < 69:
            letterGrade = "d"
        elif numGrade < 79:
            letterGrade = "c"
        elif numGrade < 89:
            letterGrade = "b"
        else :
            letterGrade = "a"
        print ("the letter grade of",numGrade,"is: ",letterGrade)

main()
```

```
>>>
Enter the # score: 22
the letter grade of 22 is:  f
>>> ================================ RESTART ================================
>>>
Enter the # score: 99
the letter grade of 99 is:  a
>>>
```

Problem 4:

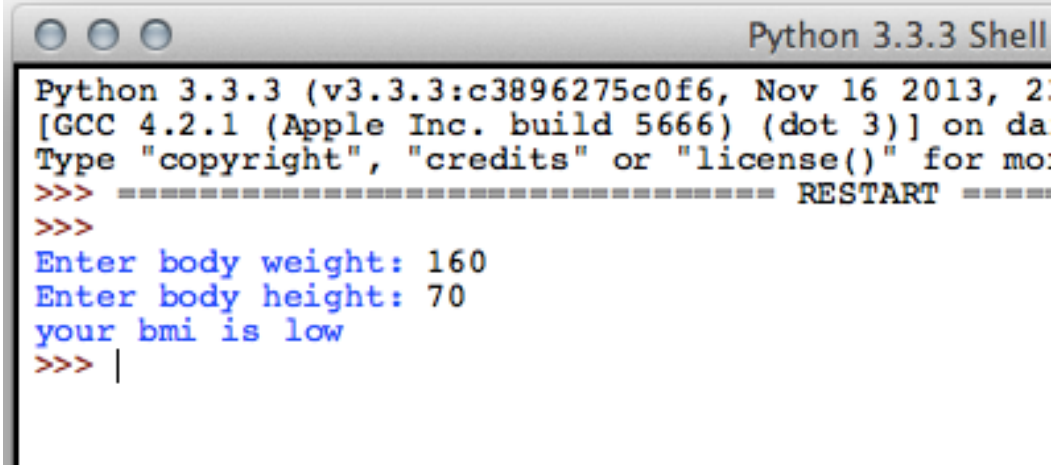
```
#ch7 prob4
from math import *
def main():
    creditsE = eval(input("Enter credits: "))

    status = "error"
    if (creditsE <=0) or (creditsE>=26):
        print ("Invalid input")
    else:
        if creditsE <= 7:
            status = "freshman"
        elif creditsE < 16:
            status = "sophomore"
        elif creditsE< 26:
            status = "junior"
        else :
            status = "senior"
        print ("the letter grade of",creditsE,"is: ",status)

main()
```

Python 3.3.3 Shell

```
Python 3.3.3 (v3.3.3:c3896275c0f6, Nov 16 2013, 23:39:35)
[GCC 4.2.1 (Apple Inc. build 5666) (dot 3)] on darwin
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter credits: 22
Traceback (most recent call last):
  File "/Users/hunterjamesnelson/Documents/ch7prob4.py", line 20, in <module>
    main()
  File "/Users/hunterjamesnelson/Documents/ch7prob4.py", line 7, in main
    if (numGrade <=0) or (creditsE>=26):
NameError: global name 'numGrade' is not defined
>>> ========== RESTART ==========
>>>
Enter credits: 22
the letter grade of 22 is:  junior
>>>
```

Problem 5:

```
#ch7 prob5
from math import *
def main():
    weight = eval(input("Enter body weight: "))
    height = eval(input("Enter body height: "))

    weightBMI = (weight * 720)
    heightBMI = sqrt(height)

    bmi = heightBMI / weightBMI

    if bmi>19 and bmi<25:
        print("your bmi is good")
    elif bmi<19:
        print("your bmi is low")
    else:
        print("your bmi is high")


main()
```



Problem 6:

```
#ch7 prob6
from math import *
def main():
    speed = eval(input("Enter speed car was going: "))
    speedLimit = eval(input("Enter speed limit: "))
    over = speed - speedLimit

    if speed < 90:
        fine = (over* 5)+50
        print("your fine is: " ,fine+200)
    else:
        print("your fine is: ",fine)


main()
```

```
>>>
Enter speed car was going: 21
Enter speed limit: 20
your fine is:  255
>>>
```

Problem 7:

```
#ch7 prob7
from math import *
def main():
    startHour = eval(input('Enter the starting hour: '))
    endHour = eval(input('Enter the end hour: '))

    if startHour < 21 and endHour < 21:
        totalTime = endHour - startHour
        totalRate = totalTime * 2.50
        print ('The total rate is : ', (totalRate))

    elif startHour >= 21:
        totalTime = endHour - startHour
        totalRate = totalTime * 1.75
        print ('The total rate is : ', (totalRate))

    elif startHour < 21 and endHour > 21:
        regRate = (21 - startHour) * 2.50
        dropTime = (endHour - 21) * 1.75
        totalRate = regRate + dropTime
        print ('The total rate is : ', (totalRate))


main()
```

```
>>> ========== RESTART ==========
>>>
Enter the starting hour: 10
Enter the end hour: 11
The total rate is $%s. 2.5
>>>
```