Ch6 Zelle

prob1

Python 3.3.3 Shell

```
squack', ',', 'squack', 'here and a ', 'squack
ck', ' there. Here a ', 'squack', 'here and a
' everywhere a', 'squack', ',', 'squack', '. O
had a farm, Ee-igh, Ee-igh, Oh!')
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh
farm he had an', 'catapallar', '. Ee-igh, Ee-i
a ', 'scoot', ',', 'scoot', 'here and a ', 'sc
coot', ' there. Here a ', 'scoot', 'here and a
' everywhere a', 'scoot', ',', 'scoot', '. Old
d a farm, Ee-igh, Ee-igh, Oh!')
>>> =============================== RESTART =
===================
>>>
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh
farm he had an', 'person', '. Ee-igh, Ee-igh,
'fart', ',', 'fart', 'here and a ', 'fart', ',
there. Here a ', 'fart', 'here and a ', 'fart'
e a', 'fart', ',', 'fart', '. Old MacDonald ha
igh, Ee-igh, Oh!')
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh
farm he had an', 'cow', '. Ee-igh, Ee-igh, Oh!
oo', ',', 'moo', 'here and a ', 'moo', ',', 'm
Here a ', 'moo', 'here and a ', 'moo', ' every
o', ',', 'moo', '. Old MacDonald had a farm, E
, Oh!')
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh
farm he had an', 'cat', '. Ee-igh, Ee-igh, Oh!
eow', ',', 'meow', 'here and a ', 'meow', ',',
ere. Here a ', 'meow', 'here and a ', 'meow',
a', 'meow', ',', 'meow', '. Old MacDonald had
h, Ee-igh, Oh!')
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh
farm he had an', 'bird', '. Ee-igh, Ee-igh, Oh
squack', ',', 'squack', 'here and a ', 'squack
ck', ' there. Here a ', 'squack', 'here and a
' everywhere a', 'squack', ',', 'squack', '. O
had a farm, Ee-igh, Ee-igh, Oh!')
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh
farm he had an', 'catapallar', '. Ee-igh, Ee-i
```

ch6prob1.py – /Users/hunterjamesnelson/Documents/python/ch6/ch6prob1.py

```python
def song(animal, noise):
    return ('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh! And on that f
    return ("     ")
    return ("     ")
print(song('person', "fart"))
print(song('cow', "moo"))
print(song('cat', "meow"))
print(song('bird', "squack"))
print(song('catapallar', "scoot"))
```

prob 3

Python 3.3.3 Shell

```
e a', 'fart', ',', 'fart', '. Old MacDonald had a farm, Ee-
igh, Ee-igh, Oh!')
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh! And on that
farm he had an', 'cow', '. Ee-igh, Ee-igh, Oh! With a ', 'm
oo', ',', 'moo', 'here and a ', 'moo', ',', 'moo', ' there.
Here a ', 'moo', 'here and a ', 'moo', ' everywhere a', 'mo
o', ',', 'moo', '. Old MacDonald had a farm, Ee-igh, Ee-igh
, Oh!')
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh! And on that
farm he had an', 'cat', '. Ee-igh, Ee-igh, Oh! With a ', 'm
eow', ',', 'meow', 'here and a ', 'meow', ',', 'meow', ' th
ere. Here a ', 'meow', 'here and a ', 'meow', ' everywhere
a', 'meow', ',', 'meow', '. Old MacDonald had a farm, Ee-ig
h, Ee-igh, Oh!')
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh! And on that
farm he had an', 'bird', '. Ee-igh, Ee-igh, Oh! With a ', '
squack', ',', 'squack', 'here and a ', 'squack', ',', 'squa
ck', ' there. Here a ', 'squack', 'here and a ', 'squack',
' everywhere a', 'squack', ',', 'squack', '. Old MacDonald
had a farm, Ee-igh, Ee-igh, Oh!')
('Old MacDonald had a farm, Ee-igh, Ee-igh, Oh! And on that
farm he had an', 'catapallar', '. Ee-igh, Ee-igh, Oh! With
a ', 'scoot', ',', 'scoot', 'here and a ', 'scoot', ',', 's
coot', ' there. Here a ', 'scoot', 'here and a ', 'scoot',
' everywhere a', 'scoot', ',', 'scoot', '. Old MacDonald ha
d a farm, Ee-igh, Ee-igh, Oh!')
>>> =============================== RESTART ==============
===================
>>>
Enter the radius of a sphere to get its area: 33
The area is:  314.1592653589793
>>> =============================== RESTART ==============
===================
>>>
Enter the radius of a sphere to get its area: 3
The area is:  314.1592653589793
Enter the radius of a sphere to get its volume: 3
The volume is:  523.5987755982989
>>>
```

ch6prob3.py – /Users/hunterjamesnelson/Documents/python/ch6/ch6pro

```python
from math import *
def sphereArea(radius):
    eval(input("Enter the radius of a sphere to get its are
    area = (4* pi)*(radius**2)
    return area

def sphereVolume(radius):
    eval(input("Enter the radius of a sphere to get its vol
    area = (4/3* pi)*(radius**3)
    return area

print("The area is: ",sphereArea(5))
print("The volume is: ",sphereVolume(5))
```

Ln: 198 Col: 4

prob5

```
Python 3.3.3 Shell
==================
>>>
Enter the radius of a sphere to get its area: 33
The area is:  314.1592653589793
>>> ============================== RESTART =====
==================
>>>
Enter the radius of a sphere to get its area: 3
The area is:  314.1592653589793
Enter the radius of a sphere to get its volume: 3
The volume is:  523.5987755982989
>>> ============================== RESTART =====
==================
>>>
Traceback (most recent call last):
  File "/Users/hunterjamesnelson/Documents/python.
ob5.py", line 11, in <module>
    area = pazzaArea(8)
NameError: name 'pazzaArea' is not defined
>>> ============================== RESTART =====
==================
>>>
201.06192982974676
>>> ============================== RESTART =====
==================
>>>
201.06192982974676
Traceback (most recent call last):
  File "/Users/hunterjamesnelson/Documents/python.
ob5.py", line 12, in <module>
    print(pricePerSqIn(8))
TypeError: pricePerSqIn() missing 1 required posi
ument: 'PriceOfPizza'
>>> ============================== RESTART =====
==================
>>>
201.06192982974676
1.0
>>>
```

```
ch6prob5.py – /Users/hunterjamesnelson/Documents/python/ch6/ch6prob5.py

from math import*

def pizzaArea(radius):
    area=pi*(radius **2)
    return area

def pricePerSqIn(area,PriceOfPizza):
    cost = PriceOfPizza / area
    return cost

print(pizzaArea(8))
print(pricePerSqIn(8,8))
```

prob7

```
Python 3.
    else: return F(n-1)+F(n-2)
NameError: global name 'F' is n
>>> ============================
==================
>>>
Traceback (most recent call las
  File "/Users/hunterjamesnelso
ne 7, in <module>
    print (fib(5))
  File "/Users/hunterjamesnelso
ne 5, in fib
    else: return fib(n-1)+F(n-2
  File "/Users/hunterjamesnelso
ne 5, in fib
    else: return fib(n-1)+F(n-2
  File "/Users/hunterjamesnelso
ne 5, in fib
    else: return fib(n-1)+F(n-2
  File "/Users/hunterjamesnelso
ne 5, in fib
    else: return fib(n-1)+F(n-2
NameError: global name 'F' is n
>>> ============================
==================
>>>
5
>>> ============================
==================
>>>


>>> ============================
==================
>>>


>>> ============================
==================
>>>
13
>>>
```

```
ch6prob7.py – /Users/hunterjamesnelson/Documents/ch6prob7.py

from math import *
def fib(n):
    if n == 0:
        return 0
    elif n == 1:
        return 1
    else:
        return fib(n-1) + fib(n-2)

print (fib(7))
```

Ln: 11 Col: 0

prob9

Python 3.3.3 She   ch6prob9.py – /Users/hunterjamesnelson/Documents/python/ch6/ch6prob9.py

```
def gradeIt(grade):
    grades = "FFDCBA"
    return grades[grade]
print(gradeIt(2))
```

Shell output:

```
==================
>>>
5
>>> ================================
==================
>>>


>>> ================================
==================
>>>


>>> ================================
==================
>>>
13
>>> ================================
==================
>>>
Traceback (most recent call last):
  File "/Users/hunterjamesnelson/D
ob9.py", line 4, in <module>
    print(gradeIt[2])
TypeError: 'function' object is no
>>> ================================
==================
>>>
Traceback (most recent call last):
  File "/Users/hunterjamesnelson/D
ob9.py", line 4, in <module>
    print(gradeIt(20))
  File "/Users/hunterjamesnelson/D
ob9.py", line 3, in gradeIt
    return grades[grade]
IndexError: string index out of ra
>>> ================================
==================
>>>
D
>>>
```

Ln: 5 Col: 0

prob11

Python 3.3.3 Shell   ch6prob11?.py – /Users/hunterjamesnelson/Documents/python/ch6/ch6prob11?.py

```
nums = [2,4,6,8]
def squareEach(listOfNums):
    for i in range(len(listOfNums)):
        square = listOfNums[i]*listOfNums[i]#multiplys num by itself
        nums[i] = square #puts number, post calc into the same spot in the list

squareEach(nums)#the actual funning of the program with list in use

print(nums)#prints list after it has been reworked into squared version
```

Shell output:

```
==================
>>>


>>> ================================
==================
>>>


>>> ================================
==================
>>>
13
>>> ================================
==================
>>>
Traceback (most recent call last):
  File "/Users/hunterjamesnelson/Doc
ob9.py", line 4, in <module>
    print(gradeIt[2])
TypeError: 'function' object is not
>>> ================================
==================
>>>
Traceback (most recent call last):
  File "/Users/hunterjamesnelson/Doc
ob9.py", line 4, in <module>
    print(gradeIt(20))
  File "/Users/hunterjamesnelson/Doc
ob9.py", line 3, in gradeIt
    return grades[grade]
IndexError: string index out of rang
>>> ================================
==================
>>>
D
>>> ================================
==================
>>>
[4, 16, 36, 64]
>>>
```

Ln: 1 Col: 1