Samples Programming with Python

1. Write down all of the output generated by the following Python program, evaluating it by hand.

```
from __future__ import division
from pylab import *

def f(x):
    print x
    ans = 4*x
    return ans

def g(x):
    ans = f(x)
    return ans+4

x = 5
print f(x)
f(g(x))
print g(x)
```

2. Write down all of the output generated by the following Python program, evaluating it by hand.

```
from __future__ import division
from pylab import *

def f(x):
    print x
    ans = 9-x
    return ans

def g(x):
    ans = f(x)
    return 5+ans

x = 7
print f(x)
f(g(x))
print g(x)
```

3. Write down all of the output generated by the following Python program, evaluating it by hand.

```
from __future__ import division
from pylab import *

def f(x):
    print x
    ans = 9+x
    return ans

def g(x):
    ans = f(x)
    return 8*ans
```

f(g(x)) print g(x)