ML Lab - Quiz #1

Question 1

For Loop Statement:

```python
print("DATA-3461 ML Lab - Quiz #1 Solutions:")
print("For Loop run:")
for x in range(1, 6):
    print(x)

print("\n")
```

While Loop Statement:

```python
print("While Loop run:")
a, b = 1, 5
while (a <=b):
    print(a)
    a += 1

print("\n")
```

Question 2

Range Function:

```python
print("Range Function Output:")
range(1, 14, 4)
print(list(range(1, 14, 4)))
print("\n")
```

Question 3

Math library:

```python
import math

print("Square Root Function from Math Library:")
x = math.sqrt(123)
```

```
print(x)
print("\n")
```

Question 4

Sin, Cos, and Pi from Math Library

```python
from math import sin, cos, pi

print("Sin, Cos, and Pi from Math Library:")
print(sin(1/2))
print(cos(pi/2))
print("\n")
```

Question 5

Writing Custom Functions in Python

```python
def cube(x):
    y = x*x*x
    return y

print("Cube Function:")
z = cube(5)
print(z)
print("\n")
```

Question 6 (Optional - Bonus Question)

Calculate the area of a rectangle

```python
print("Area of a Rectangle:")
def rect_area(p, q):
    r = p*q
    return r

a = rect_area(5, 6)
print(a)
```