

## Homework 5

Submit an electronic copy solution in moodle before class on March 31.  
Submit a hardcopy solution in class on March 31.

**Q1.** Convert the following code into a For loop.

```
B = 3
while(B <= 11):
    print(B)
    B = B + 2
```

**Q2.** Can you predict the output of the code given below?

```
a = 0
while (a <= 22):
    for i in range(1,3):
        a = a + i
        print (a)
        a = a + 5
        print (a)
print(a)
```

**Q3.** Pi can be computed by adding the following terms (<http://en.wikipedia.org/wiki/Pi>):

$$\pi = 4 \sum_{k=0}^{\infty} \frac{(-1)^k}{2k+1} = \frac{4}{1} - \frac{4}{3} + \frac{4}{5} - \frac{4}{7} + \frac{4}{9} - \frac{4}{11} \dots$$

How many terms does it take to get the first 3 digits to be correct, 3.14? Write an algorithm in python to compute it.