**Loop Exercises**

**Exercise 1: Countdown**

Write a for loop which counts down like the following:

10…

9…

8…

7…

6…

5…

4…

3…

2…

1…

Go!!!

**Exercise 2: Computation of**

The calculation of pi can be achieved through the following equation:

Using a *for* loop, compute the number of pi with using 10 iterations then 100, 1000, 100000.

**Exercise 3: Calculating Square Root**

Given a number *n*, and an approximation for its square root, a close approximation to the actual square root can be obtained using the formula:

Using this information, write a C++ program that prompts the user for a number and an initial guess at its square root. Using this input data your program should calculate an approximation to the square root that is accurate to 0.00001 (Hint: Stop the loop when the difference between two approximations is less than 0.00001.)