#include<fstream>

using namespace std;

int main()

{

//how many times is the following loop printed 100!

int i = 0;

while (i < 100)

{

cout << i;

i++;

}

//how many times? infinite!

/\*int j = 0;

while (j >= 0)

{

cout << j;

j++;

}\*/

//how many times? 100!

int k = 0;

while (k < 200)

{

cout << k;

k++;

}

//how many times? 4!

int num = 520;

while (num < 540)

{

cout << num << endl;

num += 6;

}

//ask user to input a character and print it out

//until user inputs a 0-9

char c;

cout << "Enter character: ";

cin >> c;

while (!(c >= '0' && c <= '9')) //treating the 0-9 as characters, so comparing ASCII

{

cout << c;

cout << "\nEnter next character: ";

cin >> c;

}

//Suppose that city A has 5000 people and grows 4% a year,

//and city B has 1000 people and grows 6% yearly.

//How long will it take for city B to have a larger population than city A?

double cityApop = 5000;

double cityBpop = 1000;

int years = 0;

while (cityApop >= cityBpop)

{

years++;

cityApop \*= 1.04;

cityBpop \*= 1.06;

cout << "In year " << years << " cityA: " <<

cityApop << " and cityB: " << cityBpop << endl;

}

cout << "It took " << years << " years! ";

return 0;

}