CSCI110 – Fundamentals of Computer Science
MT SAC College
CSCI110
Lab #: _____1_____
Description: _____Problem 1.6 pg 26_____

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Due Date: _____6-23-2022_____
Name: _____Brandon Wu_____
Grade: _____Freshman_____
Notes: _____Used mac terminal_____

```cpp
/*
Prolog
    a.  Program Description: Savings after 10 years with 5% interest
    b.  Author: Brandon Wu
    c.  Date: 06-23-22
    d.  Input variables: principal
    e.  Process Flow: Operations, string manipulation
    f.  Output variables: first_year, second_year, third_year, fourth_year,
fifth_year
*/

#include <iostream>
#include <cmath>
#include <iomanip>

using namespace std;

int main()
{
    float principal;
    float const interest = 1.05;
    float first_year;
    float second_year;
    float third_year;
    float fifth_year;
    float fourth_year;
    cout << "Principal Amount: ";
    cin >> principal;
    first_year = principal * interest;
    second_year = principal * pow(interest, 2);
    third_year = principal * pow(interest, 3);
    fourth_year = principal * pow(interest, 4);
    fifth_year = principal * pow(interest, 5);
    cout << fixed << setprecision(2) <<"Balance after first year: $" << first_year <<
endl;
    cout << fixed << setprecision(2) <<"Balance after second year: $" <<
second_year << endl;
```

```cpp
    cout << fixed << setprecision(2) <<"Balance after third year: $" << third_year << endl;
    cout << fixed << setprecision(2) <<"Balance after fourth year: $" << fourth_year << endl;
    cout << fixed << setprecision(2) <<"Balance after fifth year: $" << fifth_year << endl;
    system("pause");
    return 0;
}
```

```
Brandons-Air-2:Project1 brandonwu$ cd "/Users/brandonwu/Project1/Lab1/" && g++ Lab1A.cpp -o Lab1A && "/Users/brandonwu/Project1/Lab1/"Lab1
A
Principal Amount: 10000
Balance after first year: $10500.00
Balance after second year: $11025.00
Balance after third year: $11576.25
Balance after fourth year: $12155.06
Balance after fifth year: $12762.81
sh: pause: command not found
Brandons-Air-2:Lab1 brandonwu$
```