

Comp 150/170 Program 1

Points: 25 Late penalty: 10% per day

You are to write a C++ program to calculate the amount of time a savings fund will last a retiree, as described in class.

Your program should ask for:

the initial amount in the account
the amount of the monthly withdrawal
the interest rate (annual rate, compounded monthly)

Your program should then report how long the money will last and the amount remaining. Your output should look EXACTLY like the output below, given the same input data.

You should use doubles for the decimal numbers. You should use formatted output.

You may assume that the interest is paid at the end of the month, just before the amount is withdrawn, not the other way around.

For example:

```
Initial amount? 200000
Monthly withdrawal? 1000
Interest rate? 4

The fund will last for 27 years and 6 months.
The amount of money left will be 132.44, which is less than 1000.00.
```

You should turn in the following:

- (1) a structured flowchart of your algorithm (drawn by hand, not on Overflow)
- (2) a printed copy of your program including comments
- (3) Turn in your code for SPEND.CPP via the EASEL system