```cpp
#include <iostream>
#include "Time.h"
using namespace std;

int main()
{
    Time t1;
    Time t2(0, 0, 56);
    Time t3(0, 59, 56);
    Time t4(23, 59, 56);
    Time t5(0, 0, 56);

    cout << "After adding one tick:" << endl;

    cout << "\n" << "t1: all arguments defaultd\n";
    t1.addTick();
    t1.printUniversal();
    cout << "\n ";
    t1.printStandard();

    cout << "\n\nt2:\n";
    for (int i=0; i <= 5; i++){
        t2.addTick();
        t2.printStandard();
        cout << "\n";
    }

    cout << "\n\nt3:\n";
    for (int i=0; i <= 5; i++){
        t3.addTick();
        t3.printStandard();
        cout << "\n";
    }

    cout << "\n\nt4:\n";
    for (int i=0; i <= 5; i++){
        t4.addTick();
        t4.printStandard();
        cout << "\n";
    }

    cout << "\n\nt5:" << endl;
    for (int i=0; i <= 5; i++){
        t5.addTick();
        t5.printStandard();
        cout << "\n";
    }

    cout << endl;

    return 0;
}
```

```cpp
#include <iostream>
#include <iomanip>
#include "Time.h"
using namespace std;

Time::Time(int hr, int min, int sec){
    setTime(hr, min, sec);
}

void Time::setTime(int h, int m, int s){
    hour = (h >= 0 and h < 24) ? h : 0;
    minute = (m >= 0 and m < 60) ? m : 0;
    second = (s >= 0 and s < 60) ? s : 0;
}

void Time::addTick(){
    second += 1;
    if (second >= 60){
        minute += 1;
        if (minute >= 60){
            hour += 1;
        }
    }

    hour = (hour >= 0 and hour < 24) ? hour : 0;
    minute = (minute >= 0 and minute < 60) ? minute : 0;
    second = (second >= 0 and second < 60) ? second : 0;
}

void Time::printUniversal(){
    cout << setfill('0') << setw(2) << hour << ":"
        << setw(2) << minute << ":" << setw(2) << second;
}

void Time::printStandard(){
    cout << ((hour == 0 or hour == 12) ? 12 : hour % 12) << ":"
        << setfill('0') << setw(2) << minute << ":" << setw(2)
        << second << (hour < 12 ? " AM" : " PM");
}
```

```cpp
#ifndef TIME_H
#define TIME_H

class Time{
    public:
        Time(int = 0, int = 0, int = 0);
        void setTime(int, int, int);
        void addTick();
        void printUniversal();
        void printStandard();

    private:
        int hour;
        int minute;
        int second;
};

#endif
```

```
After adding one tick:

t1: all arguments defaultd
00:00:01
 12:00:01 AM

t2:
12:00:57 AM
12:00:58 AM
12:00:59 AM
12:01:00 AM
12:01:01 AM
12:01:02 AM


t3:
12:59:57 AM
12:59:58 AM
12:59:59 AM
1:00:00 AM
1:00:01 AM
1:00:02 AM
```

```
t4:
11:59:57 PM
11:59:58 PM
11:59:59 PM
12:00:00 AM
12:00:01 AM
12:00:02 AM


t5:
12:00:57 AM
12:00:58 AM
12:00:59 AM
12:01:00 AM
12:01:01 AM
12:01:02 AM
```