

## ***Problem:***

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Given a time in [-hour AM/PM format](#), convert it to military (-hour) time.

**Note:** Midnight is on a -hour clock, and on a -hour clock. Noon is on a -hour clock, and on a -hour clock.

### **Input Format**

A single string containing a time in -hour clock format (i.e.: or ), where and .

### **Output Format**

Convert and print the given time in -hour format, where .

### **Sample Input**

```
07:05:45PM
```

### **Sample Output**

```
19:05:45
```

## ***Solution:***

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```
#include <cmath>
#include<string.h>
#include<ctype.h>
#include <cstdio>
#include <vector>
#include <iostream>
#include <algorithm>
using namespace std;

int main() {
    /* Enter your code here. Read input from STDIN. Print output
to STDOUT */
```

```

int hour, minute, second;
char char1, char2, colan;
cin>>hour >>colan >>minute >>colan >>second >>char1 >>char2;

if(hour==12 && char1=='A') { cout<<"00" ; }
    //for the midnight 12am case --> 00 hours
if( (hour < 12 && char1=='A') ) {cout<<"0"<<hour; }
    //from 12AM to 12PM ----- Midnight to noon
if(hour==12 && char1=='P') {cout<<hour; }
    //for 12pm noon case;
if(hour < 12 && char1=='P' ) {cout<<hour+12; }
    //from the 12pm of noon to 12am night case
(minute<10 ? cout<<":0"<<minute : cout<<colan<<minute);
(second<10 ? cout<<":0"<<second : cout<<colan<<second);

return 0;
}

```

----- Scroll down to the next for more elegant solution -----

***More Elegant solution:***

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```

int main(){
    int hour, minute, second;
    char ch, char1;

    cin>>hour >>ch >>minute >>ch >>second >>char1 >>ch;

    hour= (hour<12 && char1=='P' ? hour+12 : (hour==12 && char1=='A'
                                                ? 0: hour ));

    cout <<setw(2) <<setfill('0') <<hour <<":"
         <<setw(2) <<setfill('0') <<minute <<":"
         <<setw(2) <<setfill('0') <<second;

    //The setfill compensates for the missing 0
    return 0;
}

```