8. Phone Time Class

The following Time class is directly coded from the Junior one in class. Use this class to create a method which takes as input two such given times, a startTime and a stopTime of a phone call, and outputs the cost of the call which depends on the start time. If the start time is between 6am and 6pm (inclusive, during the day) the cost is 7 cents a minute, otherwise it is 5 cents a minute. Write another method which inputs a time as an integer (like 1430) and converts it to a Time of this class.

```java
public class Time {
    // Does: provide military time instants
    // name: A. Nonymous Sr

    public int hour; // 0 to 23 hrs
    public int min; // 0 to 59 mins

    public Time (int h, int m) {
        // Does: set hour and min
        hour = h;
        min = m;
    } // EndConstructor Time

    public int mpm() {
        int result;
        // does: return minutes past midnight
        result = 60 * hour + min;
        return result;
    } // EndFunction mpm

    public boolean isValid() {
        boolean result;
        // Does: indicate if time is possible
        if ( (hour >= 0) && (hour < 24) &&
            (min >= 0) && (min < 60) ) {
            result = true;
        } else {
            result = false;
        } // EndIf
        return result;
    } // EndFunction isValid

    public void outMilTime() {
        // Does: output military time
        System.out.print (hour);
        if ( min < 10 ) {
            System.out.print ("0"); // single digit
        } // EndIf
        System.out.print (min);
    } // EndRoutine OutMilTime

    public static void main (String[] args) {
        // Does test the Time class
        Time first = new Time (14,30);
        if ( first.isValid () ) {
            first.outMilTime();
            System.out.print (" is "+first.mpm() );
            System.out.println(" minutes past midnight ");
        } // EndIf
    } // end main method
} // EndClass Time

// outputs: 1430 is 870 minutes past midnight
```