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.

```
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
```