C++ version

```
#include <iostream>
#include <string>

string minutes (int);

// Read an integer, then print the corresponding time of day.
int main ( ) {
   int mins, minsAfter12am;
   cin >> mins;
   minsAfter12am = mins % (24*60);
   if (minsAfter12am == 0) {
      cout << "midnight" << endl;
   } else if (minsAfter12am < 60) {
      cout << "12:" << minutes (minsAfter12am) << "am" << endl;
   } else if (minsAfter12am < 12*60) {
      cout << minsAfter12am / 60 << ":" << minutes (minsAfter12am)
          << "am" << endl;
   } else if (minsAfter12am == 12*60) {
      cout << "noon" << endl;
   } else {
      cout << minsAfter12am / 60 << ":" << minutes (minsAfter12am)
          << "pm" << endl;
   }
   return 0;
}

// Return a string representing the minutes part of the time of day represented by the argument.
string minutes (int minsAfter12am) {
   string digit1, digit2;
   digit1 = char (((minsAfter12am % 60) / 10) + '0');
   digit2 = char (((minsAfter12am % 60) % 10) + '0');
   return digit1 + digit2;
}
```

Scheme version

```
(define (time-of-day minsAfter12am)
   (helper (remainder minsAfter12am (* 24 60))) )

(define (helper minsAfter12am)
   (cond
      ((= minsAfter12am 0) 'midnight)
      ((< minsAfter12am 60)
       (word '12: (minutes minsAfter12am) 'am))
      ((< minsAfter12am (* 12 60))
       (word (quotient minsAfter12am 60) ': (minutes minsAfter12am) 'am))
      ((= minsAfter12am (* 12 60)) 'noon)
      (else
       (word (- (quotient minsAfter12am 60) 12) ': (minutes minsAfter12am) 'pm)
) ) )

(define (minutes minsAfter12am)
   (word
      (quotient (remainder minsAfter12am 60) 10)
      (remainder (remainder minsAfter12am 60) 10) ) )
```