DAYS IN MONTH

Thirty days hath September,
April, June and November,
All the rest have 31, etc

Write code in Java, to determine the number of days in a month
by knowing if the month is even or odd, and if it is greater than 7.

Assume that the months range from 1 to 12, and
that the second month, February, is a special case.

Show briefly how this can also be done in a second way,
but you need not do it this other way.

// Does specify days in month 1 to 12
// Except for February, month 2

int month, days;
month = 7;
if (month % 2 == 0) { // even
    if (month > 7) {
        days = 31;
    } else{
        days = 30;
    } //end if
} else{ // odd month
    if (month > 7) {
        days = 30;
    } else{
        days = 31;
    } //end if
} //end if

System.out.println ("Days = " + days);
// Does Days in month, other ways
// Including a loop for testing

int month;
boolean even, grt7, has30;
for (month = 1; month <= 12; month++) { //test
    even = (month % 2 == 0);
grt7 = (month > 7);
    // Another way
    if (grt7 & even) {
        has30 = true;
    } else{
        if (! grt7 & ! even) {
            has30 = true;
        } else{ //endif
            has30 = false;
        // endif
    }
    System.out.print (month + "\t");
    System.out.println (has30);
} //end for

// Yet some other ways:

has30 = true;
if (grt7 & even) {
    has30 = false;
} else{
    if (! grt7 & ! even) {
        has30 = false;
    } // endif
} // end if

// Finally, the shortest way: all logic!!
// has30 = (grt7 & even) | (! grt7 & ! even);

// Arrays (treated later) can also be defined as:

int daysInMonth[] = {0, 31, 28, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31, 31, 31, 30, 31, 30, 31, 30, 31, 30, 31};
and used as:

int mayDays = daysInMonth[5];