

HW4 – Loops

Due on Oct. 11th, 6:00pm

1. Write a program that prints a one-month calendar. The user specifies the number of days in the month and the day of the week on which the month begins:

Enter number of days in month: 31

Enter starting day of the week (1=Sun, 7=Sat): 3

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----|-----|-----|-----|-----|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

Hint: This program isn't as hard as it looks. The most important part is a for statement that uses a variable *i* to count from 1 to *n*, where *n* is the number of days in the month, printing each value of *i*. Inside the loop, an if statement tests whether it is the last day in a week; if so, it prints a new-line character.

2. Write a program that prompts the user to enter any number of dates and then indicates which date comes the latest (yy: the year is 2000 or later) on the calendar. The user will enter 0/0/0 to indicate that no more dates will be entered:

Enter a date (mm/dd/yy): 3/6/08

Enter a date (mm/dd/yy): 5/17/07

Enter a date (mm/dd/yy): 6/3/07

Enter a date (mm/dd/yy): 0/0/0

3/6/08 is the latest date

3. Write a program that prompts the user to enter an odd number n between 3 and 100 and prints out a triangle using '*' as shown below:

Enter a number: 9

Triangle:

```
* * * * * * * * *
 * * * * * * *
  * * * * *
   * * *
    * *
     *
```