Homework 01 - Steve Mazza

Problem 1

Calculate the day of week given an arbitrary date.

```
clc
clear all
 % Get user input.
 Year = input('\nEnter the year (YYYY): ');
 Month = input('Enter the month: ');
 Day = input('Enter the day: ');
 fprintf('\nYou entered %3.0f/%2.0f/%4.0f', Month, Day, Year)

% Parse user input for variable assignment.
D = Day;
 m = Month - 2;
 if m <= 0
  m = m + 12;
  Year = Year - 1;
 end
Y = mod(Year, 100);
c = (Year - Y) / 100;

% Now perform the calculation.
% NOTE: I think that within the constraint of valid input, floor() and trunc()
% behave the same.
WeekDay = mod(D + floor(0.2*(13*m-1)) + Y + floor(Y/4) + floor(c/4) - 2*c+777,7);

% Output result to the user.
DOW = {'Sunday' 'Monday' 'Tuesday' 'Wednesday' 'Thursday' 'Friday' 'Saturday'};
fprintf('\n\nYour weekday is: %s\n', DOW{WeekDay + 1});
```

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