proj01: A Simple Program

Part I:

Specifications:

Write a program that does the following in order:

- Use "raw_input" to ask the user for their name and store the name in a variable.

- Use "raw_input" to as the use for their grade and store their grade in a variable AS AN INTEGER.

Using subtraction, find out how many years are left until they graduate from high school.

Example:

Enter your name: *Brendon*
Enter your grade: 6

Brendon, you will graduate from high school in 7 years!

Part I Extension:

Can you make the name always print with a capital first letter and lowercase letters afterward, no matter how it was entered?

Example: User enters aShlYn
Prints: Ashlyn

Hint:

Each letter in a string has an index number to identify it. The first letter is 0, the second letter is 1, the third letter is 2, etc.

1. You can set a whole string to upper or lowercase using .upper() and .lower().

For example, if I had a string called **str** (any variable name would work) that was equal to "**cat**", if I say

```
str = str.upper()
print str
```

the program will print out CAT

2. If I only want to change one letter, I can do so using the index to break up the string, change one part, and then add it all back together. If I have string **myString** (any variable name would work) was equal to "**flowEr"** and I want to capitalize only the 3rd letter (o), I would say:

```
myString = myString[0:2].lower() + myString[2].upper() + myString[3:].lower()
print myString
```

This would print out flOwer

For the brackets:

- If only one number is in that bracket, it only refers to the letter at that index. So for myString[2], we're talking about the third letter in the string (remember, the index starts from 0).
- If there are two numbers, like [0:2], it is all the number inbetween those two indeces, INCLUDING the first number (in this case 0) and NOT INCLUDING the second number (in this case 2)
- If there is a colon with no number at the end (like [3:]), that means starting from and INCLUDING the first number (in this case 3) and going all the way to the end.

Part II:

Specifications:

- Use "raw_input" to as the use for their
  - Birth month
  - Birth day

  And store these in variables AS INTEGERS.

- Using subtraction from the current month and day, find out how many *months* and *days* are left until their birthday, and store these numbers in variables.

  Hint: you will have to use "if – then" statements, because you will need to do something different if they have a birthday this year or if they do not.

- Use "print" to tell the user how many months and days are left until their birthday.

Example 1 – assuming current day is 6/11:

Enter your name: *Ashlyn*
Enter your birth month (number): *9*
Enter your birth day (number): *20*

Ashlyn, your birthday is in 3 months and 9 days!

Example 2 – assuming current day is 6/11:

Enter your name: *Steven*
Enter your birth month (number): *3*
Enter your birth day (number): *8*

Steven, your birthday is in 8 months and 27 days!

MATH HINTS:

If the birth month >= the current month:

The number of months until their birthday is the (birth month - current month).

Otherwise:

The number of months until their birthday is 12 - (current month – birth month).

If the birth day >= the current day:

The number of days until their birthday is (birth day – current day).

Otherwise:

The number of days until their birthday is 30 – (current day – birthday) AND the number of months until their birthday is: the number of moths before their birthday calculated above, minus 1.

Extensions:

1. Ask your user their age, and tell your user if they are allowed to see G, PG, PG-13, or R rated movies.
2. Ask the user other questions – what will you do with this information?