

**Coding Assignment 4 – Horoscope****Due Date: Monday Feb 1, 2021**

For this assignment, your role will be as an astrologer. You want to get people hooked on your horoscope program so they keep coming back (daily? weekly? monthly?). Write a program that asks the user for their birthday as two integers: a month and a day (in that order), and then it will tell them their birthdate as well as their sign. For each sign make up a unique horoscope – you may look up examples of horoscopes online, but you may NOT match anyone else in class – examples are included on back.

**You must use arrays and your program must include 2 methods:**

**public static String birthdate(int m, int d)** – takes in the birthday month & day and returns a String with the user's birthday in long-form (i.e. 3 17 becomes March seventeenth).

**public static String sign(int m, int d)** - takes in the birthday month & day and returns a String with the user's sign and an "at-school appropriate" horoscope that you've created.

**If an incorrect month number or date is entered the program should print an error.**

January, March, May, July, August, October and December have 31 days

April, June, September, November have 30 days

And we will let February have 29 days to make leap year babies okay

**Use the following dates to determine the sign/horoscope:**

- Aries 21 March – 19 April
- Taurus 20 April – 20 May
- Gemini 21 May – 20 June
- Cancer 21 June – 22 July
- Leo 23 July – 22 August
- Virgo 23 August – 22 September
- Libra 23 September – 22 October
- Scorpio 23 October – 21 November
- Sagittarius 22 November – 21 December
- Capricorn 22 December – 19 January
- Aquarius 20 January – 18 February
- Pisces 19 February – 20 March

**GRADING RUBRIC, OUT OF 60 POINTS:**

- Display a unique welcome message to the user and ask for their birthday. (5)
- Correct date and birth sign given for date input by user. (12 points)
- Unique horoscope for each birth sign included: (12)
- Output follows the following rules:
  - Must output their birthday and horoscope sign. The month will always be capitalized, the day will always be lowercase. Birthday and sign must be separate lines. (5)
  - Hyphens will be included for compound dates, such as the twenty-first, twenty-second, twenty-ninth, thirty-first. (2)
  - All spelling in comments and spelling of dates must be correct. For example note that: 8<sup>th</sup> is spelled eighth, 10<sup>th</sup> is spelled tenth, 20<sup>th</sup> is spelled twentieth and 30<sup>th</sup> is spelled thirtieth. (5)
- Error messages for incorrect dates clearly explain what is wrong (4)
- Say "Happy Birthday" if current date is user's birthday (5)
  - To get current date need to **import java.util.Calendar;** at top of program and use the following:
 

```
Calendar today = Calendar.getInstance();
int todaymonth = today.get(Calendar.MONTH)+1;
int todayday = today.get(Calendar.DAY_OF_MONTH);
```
- Code is commented in header and above sections. Algorithm is detailed. (5)
- Code is aligned and sectioned nicely, and free of spelling errors, variable names proper naming convention. (5)

### **SAMPLE RUN 1:**

What month were you born in?(number)

9

What day (number)

25

Your birthday is: September twenty-fifth

Your sign is: Libra

Horoscope: Expect lots of hard work, but also lots of laughs this month.

### **SAMPLE RUN 2:**

What month were you born in?(number)

6

What day (number)

20

Your birthday is: June twentieth

Your sign is: Gemini

Horoscope: A long lost friend will be in touch soon.

### **SAMPLE RUN 3:**

What month were you born in?(number)

2

What day (number)

3

Your birthday is: February third

Happy Birthday to you!

Your sign is: Aquarius

Horoscope: Something unexpected will come your way today.

### Sample Run 4:

What month were you born in? (number)

13

What day (number)

1

invalid birth month

### Sample Run 5:

What month were you born in? (number)

6

What day (number)

45

invalid birth day