Soc-wk5-Frances_Endencia-cert-py
Sept 1, 2018   1MillionWomenToTechnology

Frances Endencia

Aug 13-16, 2018

<div align="center">

Soc-wk5-Frances-Endencia-cert.js

Javascript Homework

</div>

```
> 5*(12-8) + -15
← 5
> 98 + (59872 / (13 * 8))


← 673.6923076923077
```

Write a program that calculates the hours in a year

```
> 11:10:24.598 hours_day = 24;
              days_year = 365;
              hours_year = hours_day * days_year;  // 8760 hours_year
              console.log("There are " + hours_year + " " + " hours in a year.");
  11:10:24.598 There are 8760  hours in a year.
```

There are 8760 hours in a year

Write a program that calculates minutes in a decade

```
> 11:07:15.647 minutes_hour = 60;
              hours_day = 24;
              days_year = 365;
              decade = 10;
              minutes_decade = minutes_hour * hours_day * days_year * decade;
              console.log("There are " + minutes_decade + " " + "minutes in a decade.");
  11:07:15.648 There are 5256000 minutes in a decade.
```

Write a program that calculates your age in seconds

```
> 11:02:10.762 age = 53;
              days_year = 365;
              hours_day = 24;
              minutes_hour = 60;
              seconds_minute = 60;
              age_seconds = (age * days_year * hours_day * minutes_hour * seconds_minute) // on exact birthday at 53 years, age_seconds
              Jan = 31; // 31 days in January
              Feb = 28; // 28 days in February
              Mar = 31; // 31 days in March
              Apr = 30; // 30 days in April
              May = 31; // 31 days in May
              Jun = 30; // 30 days in June
              Jul = 31; // 31 days in July
              Aug = 31; // 31 days in August
              add1_days = (Jan + Feb + Mar + Apr + May + Jun + Jul + Aug) * hours_day * minutes_hour * seconds_minute;
              current_age = age_seconds + add1_days;
              console.log("My age in seconds is " + current_age + " ");
  11:02:10.763 My age in seconds is 1692403200
```

Cristina Tarantino is 32 years old yesterday. Calculate her age in milliseconds

```
> 10:58:34.061 age = 32;
               days_year = 365;
               hours_day = 24;
               minutes_hour = 60;
               seconds_minute = 60;
               milliseconds = 0.001;
               age_milliseconds = age * days_year * hours_day * minutes_hour * milliseconds;
               console.log("Cristina Tarantino's age in milliseconds is  " + age_milliseconds + " ");
  10:58:34.061 Cristina Tarantino's age in milliseconds is  16819.2
```

Day 2

#1 Octave A = 440 Hz to next octave higher A1 = 880 Hz

Notes are C, C#, D, D#, E, F, F#, G, G#, A, A#, B. Calculate the frequencies in between using javaScript.

```
> 22:25:24.845 A = 440;
< 22:25:24.848 440
> 22:26:06.077 A1 = A * Math.pow(2, 1/12);
< 22:26:06.080 466.1637615180899
> 22:27:05.427 B = A * Math.pow(2, 2/12);
< 22:27:05.429 493.8833012561241
> 22:28:57.210 G1 = A * Math.pow(2, -1/12);
< 22:28:57.211 415.3046975799451
> 22:30:01.513 G = Math.pow(2, -2/12);
< 22:30:01.517 0.8908987181403393
> 22:30:49.533 F1 = A * Math.pow(2, -3/12);
< 22:30:49.534 369.9944227116344
```

```
> 22:31:56.169 F = A * Math.pow(2, -4/12);
< 22:31:56.171 349.2282314330039
> 22:32:36.076 E = Math.pow(2, -5/12);
< 22:32:36.079 0.7491535384383408
> 22:33:58.602 D1 = A * Math.pow(2, -6/12);
< 22:33:58.604 311.1269837220809
> 22:34:30.017 D = Math.pow(2, -7/12);
< 22:34:30.020 0.6674199270850172
> 22:36:54.192 C1 = A * Math.pow(2, -8/13);
< 22:36:54.194 287.2125734961581
> 22:37:46.827 C = A * Math.pow(2, -9/13);
< 22:37:46.829 272.2997827671942
```

#2   Calculate in console log how many minutes the moon travels in an earth day.

Answer: The moon revolves around the earth at 13.2 degrees / day. It takes about 27.3 earth days for the moon to complete a revolution (one day for the moon) (one revolution is 360 degrees). Took sine of 13.2 degrees = .6 day then calculated the minutes in a day

```
>  14:09:00.954 Math.sin(13.2)
<  14:09:00.957 0.5920073514707223
```
moon travel per earth day

```
>  15:02:28.510 .6 * hrs_day * min_hr
<  15:02:28.513 863.9999999999
```

```
>  15:25:02.541 2018-08-26 15:23:48.243 travels " + min_moon_travel_earth_day + " " +
                "minutes in one earth day")
```

Console

www.google.com says

The moon travels 864 minutes in one earth day

OK

Day 3 In Javascript

#1   Parsefloat is a number parsed as a string that returns as a number.

- Only the first number is returned
- Leading and trail spaces are allowed
- If the first number cannot be converted, it returns as a Nan

```
> a = parseFloat("25");
< 25
> var a = parseFloat("26");
< undefined
> b = parseFloat("30.00");
< 30
```

```
> c = parseFloat("12.45");
< 12.45
> d = parseFloat("21 25 29");
< 21
> e = parseFloat("  32  ");
< 32
> f = parseFloat(" 43 years old.");
< 43
> g = parseFloat("He is going to be 29 tomorrow.");
< NaN
> sum = a + b + c + d + e + f;
< 163.45
> sum = a + b + c + d + e + f + g;
< NaN
```

Length

```
> cars = "volvo, fiat, volkswagen";
< "volvo, fiat, volkswagen"
> cars.length;
< 23
> cars[7];
< "f"
> cars[22];
< "n"
> cars[20];
< "g"
```

toUpper( )

```
> name = "Frances";
< "Frances"
> name.toUpperCase();
< "FRANCES"
```

toLower( )

```
> last_name = "ENDENCIA";
< "ENDENCIA"
> last_name.toLowerCase();
< "endencia"
```

Math.pow(base, number)

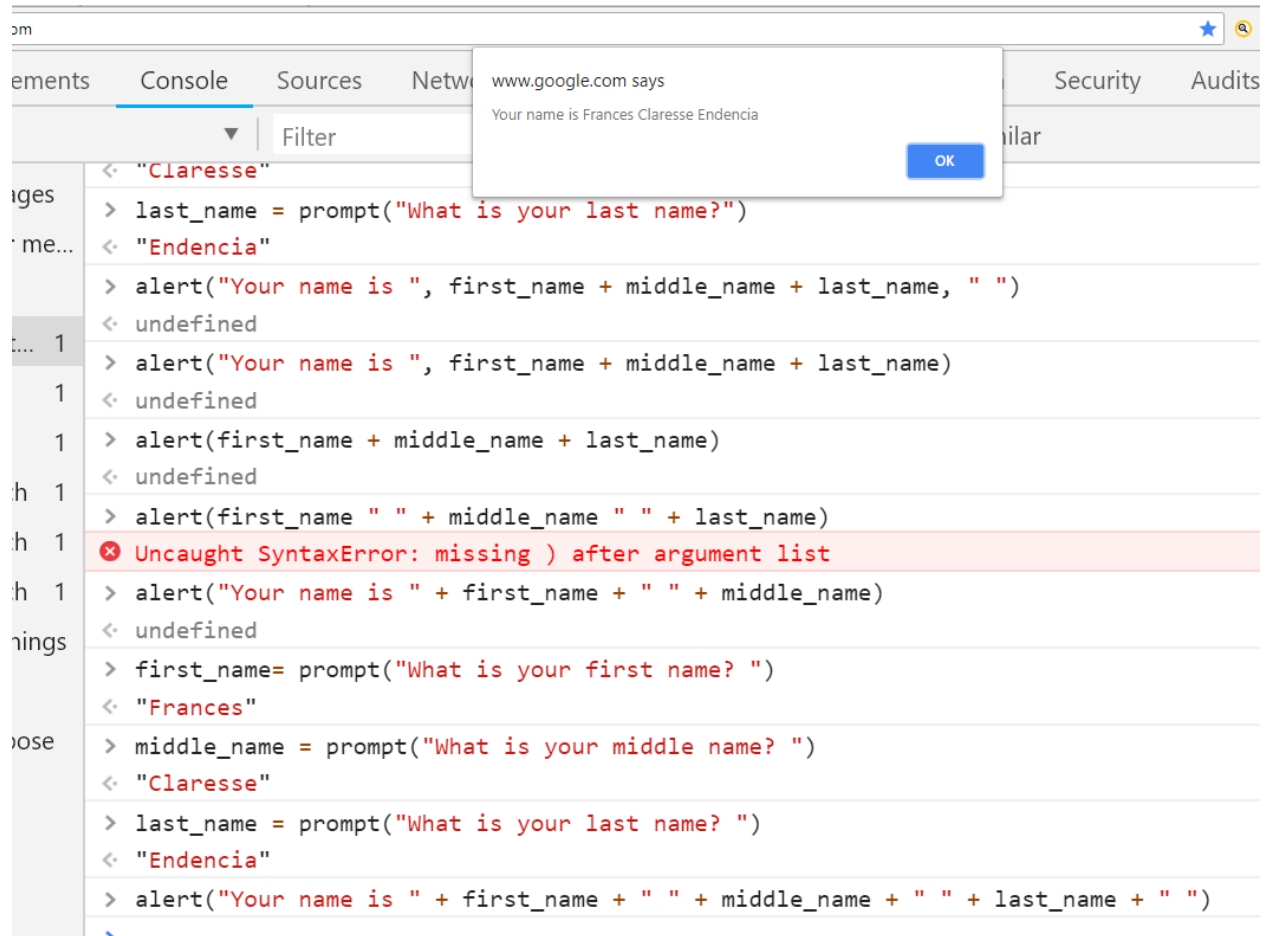# The pow() method returns the value of x to the power of y (x^y).

```
> Math.pow(2, 5);
< 32
> Math.pow(10,3);
< 1000
```

Modulus = remainder of division

```
> x = 10;
< 10
> y = 3;
< 3
> x %= y;
< 1
> x = x % y;
< 1
```
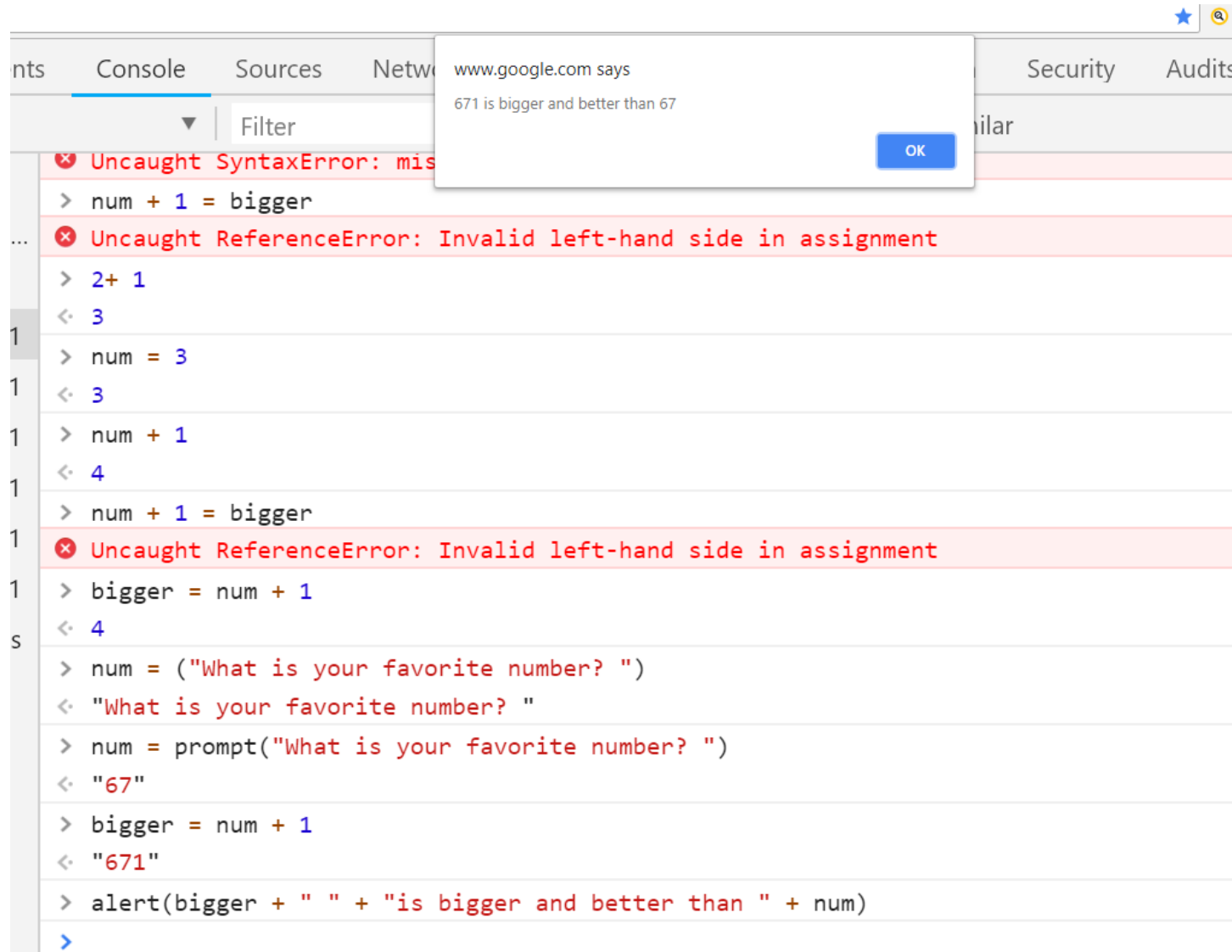
#2 USER INPUT

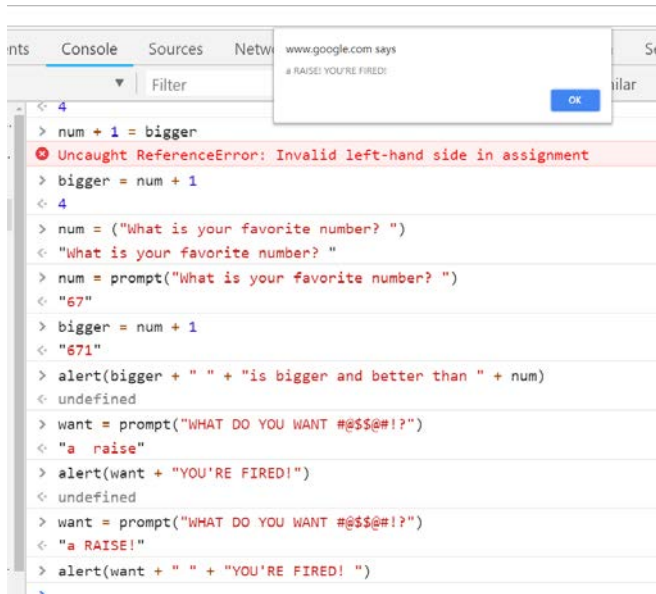Greeting. Ask user input first name, middle name and last name and it will come back as the full name.

#3 Bigger is Better

User input a favorite number and program adds 1 and outputs the second no is bigger and better.

```
nts     Console     Sources     Netwo    www.google.com says                          Security     Audits

                        ▼ |  Filter              671 is bigger and better than 67         ilar

        ⊗ Uncaught SyntaxError: mis                                    OK
        > num + 1 = bigger
   ...  ⊗ Uncaught ReferenceError: Invalid left-hand side in assignment
        > 2+ 1
        <· 3
1
        > num = 3
1       <· 3
1       > num + 1
1       <· 4
        > num + 1 = bigger
1       ⊗ Uncaught ReferenceError: Invalid left-hand side in assignment
1       > bigger = num + 1
        <· 4
S
        > num = ("What is your favorite number? ")
        <· "What is your favorite number? "
        > num = prompt("What is your favorite number? ")
        <· "67"
        > bigger = num + 1
        <· "671"
        > alert(bigger + " " + "is bigger and better than " + num)
        >
```

#4 Angry Boss

Write a program that rudely asks what you want and it shouts back what you want and "you're fired!"

```
nts   Console   Sources   Netw   www.google.com says                    Se
                                 a RAISE! YOU'RE FIRED!
         ▼   Filter                                            ilar
                                                        OK
  <  4
  >  num + 1 = bigger
  ⊗  Uncaught ReferenceError: Invalid left-hand side in assignment
  >  bigger = num + 1
  <  4
  >  num = ("What is your favorite number? ")
  <  "What is your favorite number? "
  >  num = prompt("What is your favorite number? ")
  <  "67"
  >  bigger = num + 1
  <  "671"
  >  alert(bigger + " " + "is bigger and better than " + num)
  <  undefined
  >  want = prompt("WHAT DO YOU WANT #@$$@#!?")
  <  "a  raise"
  >  alert(want + "YOU'RE FIRED!")
  <  undefined
  >  want = prompt("WHAT DO YOU WANT #@$$@#!?")
  <  "a RAISE!"
  >  alert(want + " " + "YOU'RE FIRED! ")
```

#5 Write a program that prints the Table of Contents – HTML / CSS

```html
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
    color: blue;
    font-family: courier;
    font-size: 180%;
    text_align: center;

}
p  {
    color: red;
    font-family: courier;
    font-size: 120%;
    text_align: left;
}
</style>
</head>
<body>

<h1>Table of Contents</h1>
<p>1  Numbers <br>
   2  Arrays<br>
   3  Strings </p>

</body>
</html>
```

Table of Contents

1 Numbers
2 Arrays
3 Strings

6 Generate random numbers between 1 & 10

```
> 22:57:45.114 Math.floor(Math.random()*11) + 1;
< 22:57:45.118 9
> 22:57:47.781 Math.floor(Math.random()*11) + 1;
< 22:57:47.785 4
                2018-08-23 22:57:47.781
> 22:57:50.235 Math.floor(Math.random()*11) + 1;
< 22:57:50.238 6
```

Generate random numbers between 1 & 100

```
> 22:59:28.605 Math.floor(Math.random()*101) + 1;
< 22:59:28.607 33
> 22:59:34.569 Math.floor(Math.random()*101) + 1;
< 22:59:34.572 90
> 22:59:40.443 Math.floor(Math.random()*11) + 1;
< 22:59:40.446 6
```

Generate random numbers between 1930 & 1950

```
> 20:44:43.152 (Math.random() * 20) + 1930;        // 20 = 1950-1930
< 20:44:43.156 1943.8637508187765
> 20:45:05.212 (Math.random() * 20) + 1930;
< 20:45:05.216 1936.9005314298522
> 20:52:42.679 Math.floor(Math.random() * 20) + 1930;
< 20:52:42.682 1942
> 20:52:55.257 Math.floor(Math.random() * 20) + 1930;
< 20:52:55.259 1940
> |
```

7 Optional

//Generate the world continents utilizing o as water and x as land in 11 x 11 in javascript

//Google console for javascript has a bug for var x;

world = [['o','o','x','o','x','o','o','o','o','o','o'],

   ['o','o','o','x','o','o','o','x','x','x','x'],

   ['x','x','x','x','o','o','x','x','x','o','o'],

```
    ['o','x','x','x','o','x','x','x','x','x','o'],

    ['o','o','x','x','o','x','x','x','o','o','o'],

    ['o','o','x','o','o','x','x','x','o','o','o'],

    ['o','o','o','x','o','x','x','x','x','o','o'],

    ['o','o','x','x','o','o','x','o','x','x','o'],

    ['o','o','o','x','x','o','o','o','x','x','o'],

    ['o','o','x','x','o','o','x','x','x','x','o'],

    ['o','o','x','x','x','x','x','x','x','x','o']

    ]

  for (var i = 0; i < world.length; i++) {

   for (var j = 0; j <world[i].length; j++) {

     console.log(world[i][j]);

    }

   }
```

Day 4

1 99 Beers on the wall song in javascript

```
1  beer_count = 99;
2  beer = [];
3  while (beer_count > 1) {
4      console.log(beer_count + " bottles of beer on the wall. " + beer_count + " bottles of beer!  Take one down and pass it around, ");
5
6      beer_count = beer_count - 1;
7              console.log(beer_count + " bottles of beer on the wall. ");
8      if (beer_count == 1) {
9          console.log(beer_count + " bottle of beer on the wall. " + beer_count + " bottle of beer!  Take one down and pass it around, no more
    bottle of beer on te wall.  No more bottle of beer on the wall, no more bottle of beer!  Go to the store and buy some more, 99 bottles of beer
    on the wall.");
10                  }
11  }
```

```
09:26:35.696 99  bottles of beer in the wall.99 bottles of beer! Take one down and pass it around.
09:26:35.696 98 bottles of beer on the wall.
09:26:35.696 98  bottles of beer in the wall.98 bottles of beer! Take one down and pass it around.
09:26:35.696 97 bottles of beer on the wall.
09:26:35.696 97  bottles of beer in the wall.97 bottles of beer! Take one down and pass it around.
09:26:35.696 96 bottles of beer on the wall.
09:26:35.696 96  bottles of beer in the wall.96 bottles of beer! Take one down and pass it around.
09:26:35.696 95 bottles of beer on the wall.
09:26:35.696 95  bottles of beer in the wall.95 bottles of beer! Take one down and pass it around.
09:26:35.697 94 bottles of beer on the wall.
09:26:35.697 94  bottles of beer in the wall.94 bottles of beer! Take one down and pass it around.
09:26:35.697 93 bottles of beer on the wall.
09:26:35.697 93  bottles of beer in the wall.93 bottles of beer! Take one down and pass it around.
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09:26:35.697 92  bottles of beer in the wall.92 bottles of beer! Take one down and pass it around.
09:26:35.697 91 bottles of beer on the wall.
09:26:35.697 91  bottles of beer in the wall.91 bottles of beer! Take one down and pass it around.
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09:26:35.700 81  bottles of beer in the wall.81 bottles of beer! Take one down and pass it around.
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09:26:35.700 79  bottles of beer in the wall.79 bottles of beer! Take one down and pass it around.
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09:26:35.700 78  bottles of beer in the wall.78 bottles of beer! Take one down and pass it around.
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09:26:35.701 77  bottles of beer in the wall.77 bottles of beer! Take one down and pass it around.
09:26:35.701 76 bottles of beer on the wall.
09:26:35.701 76  bottles of beer in the wall.76 bottles of beer! Take one down and pass it around.
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09:26:35.701 76  bottles of beer in the wall.76 bottles of beer! Take one down and pass it around.
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09:26:35.701 75  bottles of beer in the wall.75 bottles of beer! Take one down and pass it around.
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09:26:35.702 73  bottles of beer in the wall.73 bottles of beer! Take one down and pass it around.
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09:26:35.702 72  bottles of beer in the wall.72 bottles of beer! Take one down and pass it around.
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09:26:35.702 71  bottles of beer in the wall.71 bottles of beer! Take one down and pass it around.
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09:26:35.702 70  bottles of beer in the wall.70 bottles of beer! Take one down and pass it around.
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09:26:35.702 69  bottles of beer in the wall.69 bottles of beer! Take one down and pass it around.
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09:26:35.703 68  bottles of beer in the wall.68 bottles of beer! Take one down and pass it around.
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09:26:35.704 62  bottles of beer in the wall.62 bottles of beer! Take one down and pass it around.
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09:26:35.706 54  bottles of beer in the wall.54 bottles of beer! Take one down and pass it around.
09:26:35.706 53 bottles of beer on the wall.
09:26:35.706 53  bottles of beer in the wall.53 bottles of beer! Take one down and pass it around.
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09:26:35.706 52  bottles of beer in the wall.52 bottles of beer! Take one down and pass it around.
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09:26:35.706 51  bottles of beer in the wall.51 bottles of beer! Take one down and pass it around.
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09:26:35.707 46  bottles of beer in the wall.46 bottles of beer! Take one down and pass it around.
09:26:35.707 45 bottles of beer on the wall.
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09:26:35.708 44 bottles of beer on the wall.
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09:26:35.708 41  bottles of beer in the wall.41 bottles of beer! Take one down and pass it around.
09:26:35.709 40 bottles of beer on the wall.
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09:26:35.709 39  bottles of beer in the wall.39 bottles of beer! Take one down and pass it around.
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09:26:35.710 35 bottles of beer on the wall.
09:26:35.710 35  bottles of beer in the wall.35 bottles of beer! Take one down and pass it around.
09:26:35.710 34 bottles of beer on the wall.
09:26:35.710 34  bottles of beer in the wall.34 bottles of beer! Take one down and pass it around.
09:26:35.710 33 bottles of beer on the wall.
09:26:35.710 33  bottles of beer in the wall.33 bottles of beer! Take one down and pass it around.
09:26:35.710 32 bottles of beer on the wall.
09:26:35.710 32  bottles of beer in the wall.32 bottles of beer! Take one down and pass it around.
09:26:35.710 31 bottles of beer on the wall.
09:26:35.711 31  bottles of beer in the wall.31 bottles of beer! Take one down and pass it around.
09:26:35.711 30 bottles of beer on the wall.
09:26:35.711 30  bottles of beer in the wall.30 bottles of beer! Take one down and pass it around.
09:26:35.711 29 bottles of beer on the wall.
```

```
09:26:35.711 29  bottles of beer in the wall.29 bottles of beer! Take one down and pass it around.
09:26:35.711 28 bottles of beer on the wall.
09:26:35.711 28  bottles of beer in the wall.28 bottles of beer! Take one down and pass it around.
09:26:35.711 27 bottles of beer on the wall.
09:26:35.711 27  bottles of beer in the wall.27 bottles of beer! Take one down and pass it around.
09:26:35.711 26 bottles of beer on the wall.
09:26:35.712 26  bottles of beer in the wall.26 bottles of beer! Take one down and pass it around.
09:26:35.712 25 bottles of beer on the wall.
09:26:35.712 25  bottles of beer in the wall.25 bottles of beer! Take one down and pass it around.
09:26:35.712 24 bottles of beer on the wall.
09:26:35.712 24  bottles of beer in the wall.24 bottles of beer! Take one down and pass it around.
09:26:35.712 23 bottles of beer on the wall.
09:26:35.712 23  bottles of beer in the wall.23 bottles of beer! Take one down and pass it around.
09:26:35.712 22 bottles of beer on the wall.
09:26:35.712 22  bottles of beer in the wall.22 bottles of beer! Take one down and pass it around.
09:26:35.713 21 bottles of beer on the wall.
09:26:35.713 21  bottles of beer in the wall.21 bottles of beer! Take one down and pass it around.
09:26:35.713 20 bottles of beer on the wall.
09:26:35.713 20  bottles of beer in the wall.20 bottles of beer! Take one down and pass it around.
09:26:35.713 19 bottles of beer on the wall.
09:26:35.713 19  bottles of beer in the wall.19 bottles of beer! Take one down and pass it around.
09:26:35.713 18 bottles of beer on the wall.
09:26:35.713 18  bottles of beer in the wall.18 bottles of beer! Take one down and pass it around.
09:26:35.713 17 bottles of beer on the wall.
09:26:35.714 17  bottles of beer in the wall.17 bottles of beer! Take one down and pass it around.
09:26:35.714 16 bottles of beer on the wall.
09:26:35.714 16  bottles of beer in the wall.16 bottles of beer! Take one down and pass it around.
09:26:35.714 15 bottles of beer on the wall.
09:26:35.714 15  bottles of beer in the wall.15 bottles of beer! Take one down and pass it around.
09:26:35.714 14 bottles of beer on the wall.
09:26:35.714 14  bottles of beer in the wall.14 bottles of beer! Take one down and pass it around.
09:26:35.714 13 bottles of beer on the wall.
09:26:35.714 13  bottles of beer in the wall.13 bottles of beer! Take one down and pass it around.
09:26:35.715 12 bottles of beer on the wall.
09:26:35.715 12  bottles of beer in the wall.12 bottles of beer! Take one down and pass it around.
09:26:35.715 11 bottles of beer on the wall.
09:26:35.715 11  bottles of beer in the wall.11 bottles of beer! Take one down and pass it around.
09:26:35.715 10 bottles of beer on the wall.
09:26:35.715 10  bottles of beer in the wall.10 bottles of beer! Take one down and pass it around.
09:26:35.715 9 bottles of beer on the wall.
09:26:35.715 9   bottles of beer in the wall.9 bottles of beer! Take one down and pass it around.
09:26:35.715 8 bottles of beer on the wall.
09:26:35.715 8   bottles of beer in the wall.8 bottles of beer! Take one down and pass it around.
09:26:35.716 7 bottles of beer on the wall.
09:26:35.716 7   bottles of beer in the wall.7 bottles of beer! Take one down and pass it around.
09:26:35.716 6 bottles of beer on the wall.
09:26:35.716 6   bottles of beer in the wall.6 bottles of beer! Take one down and pass it around.
```

```
09:41:3           2018-09-01 09:41:32.614     on the wall.
09:41:32.614 5   bottles of beer in the wall.5 bottles of beer! Take one down and pass it around.
09:41:32.614 4 bottles of beer on the wall.
09:41:32.614 4   bottles of beer in the wall.4 bottles of beer! Take one down and pass it around.
09:41:32.614 3 bottles of beer on the wall.
09:41:32.614 3   bottles of beer in the wall.3 bottles of beer! Take one down and pass it around.
09:41:32.614 2 bottles of beer on the wall.
09:41:32.614 2   bottles of beer in the wall.2 bottles of beer! Take one down and pass it around.
09:41:32.615 1 bottles of beer on the wall.
09:41:32.615 1 bottle of beer in the wall. 1 bottles of beer! Take onde down and pass it arount, no mor bottles of beer!  Go to the store and buy some more, 99 bottles of beer on the wall!
09:41:32.659 undefined
>|
```

#2 How many days that a 32 bit computer overflow? 64 bit computer?

It depends on how much memory is utilized. It's not a number of days, it's how much memory is utilized. A 32 bit RAM (Random Access Memory) has 4 gigabytes while a 64 bit RAM has 128 gigabytes

3   Write a function that returns "moo" to n number

```
▸ 19:35:52.901 function repeatstring(n, string) {
                var repeat = [ ];
                repeat.length = n + 1;
                    return repeat.join(string)
            }
⋮ 19:35:52.903 undefined
▸ 19:36:21.583 repeatstring(4, 'moo');
⋮ 19:36:21.586 "moomoomoomoo"
▸ 19:36:55.920 repeatstring (3, 'I love you. ');
⋮ 19:36:55.922 "I love you. I love you. I love you. "
▸ |
```

4   Strings, length, sort, push, join, pop

```
>  21:24:27.403 var students = ["Anita deLeon", "Sandy Holmes", "Linda Santos"];
<  21:24:27.406 undefined
>  21:25:59.959 var student1 = students[0];
<  21:25:59.961 undefined
>  21:26:16.778 students[0];
<  21:26:16.780 "Anita deLeon"
>  21:26:28.914 students[1];
<  21:26:28.916 "Sandy Holmes"
>  21:26:38.887 students[2];
<  21:26:38.889 "Linda Santos"
>  21:27:18.531 students.length();
⊗  21:27:18.533 ▶ Uncaught TypeError: students.length is not a function
                   at <anonymous>:1:10
>  21:27:49.798 students.length;
<  21:27:49.800 3
>  21:28:14.411 students.sort;
<  21:28:14.414 ƒ sort() { [native code] }
>  21:28:46.135 students.sort;
<  21:28:46.137 ƒ sort() { [native code] }
>  21:29:08.019 students.sort();
<  21:29:08.022 ▶ (3) ["Anita deLeon", "Linda Santos", "Sandy Holmes"]
>  21:30:03.141 students.pop("Grace Honculada");
<  21:30:03.143 "Sandy Holmes"
>  21:30:48.687 students.sort():
⊗  21:30:48.689 Uncaught SyntaxError: Unexpected token :
>  21:30:54.226 students.sort();
<  21:30:54.228 ▶ (2) ["Anita deLeon", "Linda Santos"]
>  21:31:57.918 students.push("Grace Honculada");
<  21:31:57.920 3
>  21:32:16.405 students.sort();
<  21:32:16.408 ▶ (3) ["Anita deLeon", "Grace Honculada", "Linda Santos"]
>  21:33:42.458 students.join("Imelda Encarndao");
<  21:33:42.459 "Anita deLeonImelda EncarndaoGrace HonculadaImelda EncarndaoLinda Santos"
> |
```

```
- #5  Write a program that converts integers to Roman Numerals
  function romanNo (num) {
      if (!+num)
          return NaN;
      var digits = String(+num).split(""),
          key = ["","C","CC","CCC","CD","D","DC","DCC","DCCC","CM",
                 "","X","XX","XXX","XL","L","LX","LXX","LXXX","XC",
                 "","I","II","III","IV","V","VI","VII","VIII","IX"],
          roman = "",
          i = 3;
      while (i--)
          roman = (key[+digits.pop() + (i * 10)] || "") + roman;
      return Array(+digits.join("") + 1).join("M") + roman;
  }
  romanNo(21)
  03:13:15.125 "XXI"
  03:14:06.483 romanNo(534)
```

03:14:06.487 "DXXXIV"
03:14:25.467 romanNo(-10)
03:14:25.471 "X"

Write a program that inputs a year and outputs true if leap year and false if not a leap year

Note: Is the year divisible by 4? Is the year divisible by 100? Is the year divisible by 400?

If true to all 3 question, is a leap year.

Notes to study

http://adhilton.pratt.duke.edu/sites/adhilton.pratt.duke.edu/files/u37/iticse-7steps.pdf

The Git Book: https://git-scm.com/book/en/vs

How to update via SourceTree

https://stackoverflow.com/questions/13273852/how-do-i-update-my-forked-repo-using-sourcetree

https://akrabat.com/the-beginners-guide-to-contributing-to-a-github-project/

Udacity Git Course:

https://eu.udacity.com/course/how-to-use-git-and-github--ud775

video

https://Coursera.org/lecture/duke-programming-web/a-seven-step-approach-to-solving-programming-problems-AEy5M

Book: The Algorithm Design Manual by Steven S Skiena