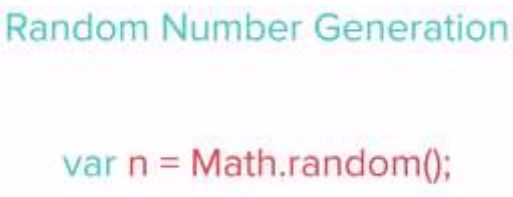
Random Number Generation in JavaScript Building a Love Calculator

Random Pseudo Number Generation:



JS random number is between 0 to 0.9999999999999999 (16 decimal places)

```
> var n = Math.random();
  console.log(n);
  0.945404775735188
< undefined
>
```

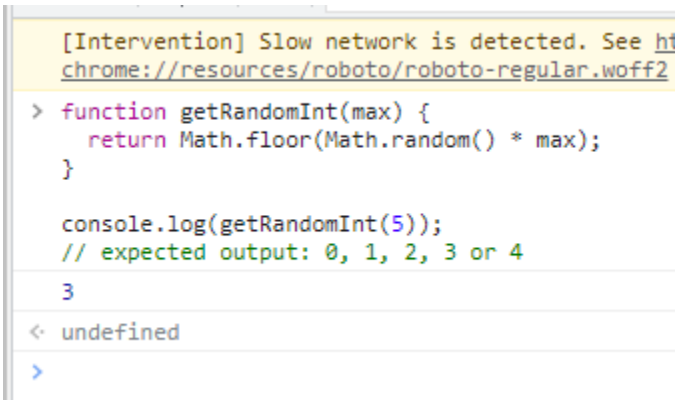
```
> var n = Math.random();
  n = n*6;
  n=Math.floor(n);
  console.log(n);
  2
< undefined
>
```

```
> function getRandomInt(max) {
    return Math.floor(Math.random() * max);
  }

  console.log(getRandomInt(3));
  // expected output: 0, 1 or 2

  console.log(getRandomInt(1));
  // expected output: 0

  console.log(Math.random());
  // expected output: a number from 0 to <1
  2
  0
  0.9728457276213973
< undefined
>
```

Math.random()

The `Math.random()` function returns a floating-point, pseudo-random number in the range 0 to less than 1 (inclusive of 0, but not 1) with approximately uniform distribution over that range — which you can then scale to your desired range. The implementation selects the initial seed to the random number generation algorithm; it cannot be chosen or reset by the user.

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math/random



Note: Expected output is from **0** to **max-1**.

Pseudo Random Number

var n=Math.random();

n=n*6;

n=Math.floor(n)+1;

console.log(n);

The difference between true random number generators(TRNGs) and pseudo-random number generators(PRNGs) is that **TRNGs use an unpredictable physical means to generate numbers (like atmospheric noise), and PRNGs use mathematical algorithms (completely computer-generated)**.

https://youtu.be/GtOt7EBNEwQ //see this video

Random Number Generation

```
var n = Math.random();
```

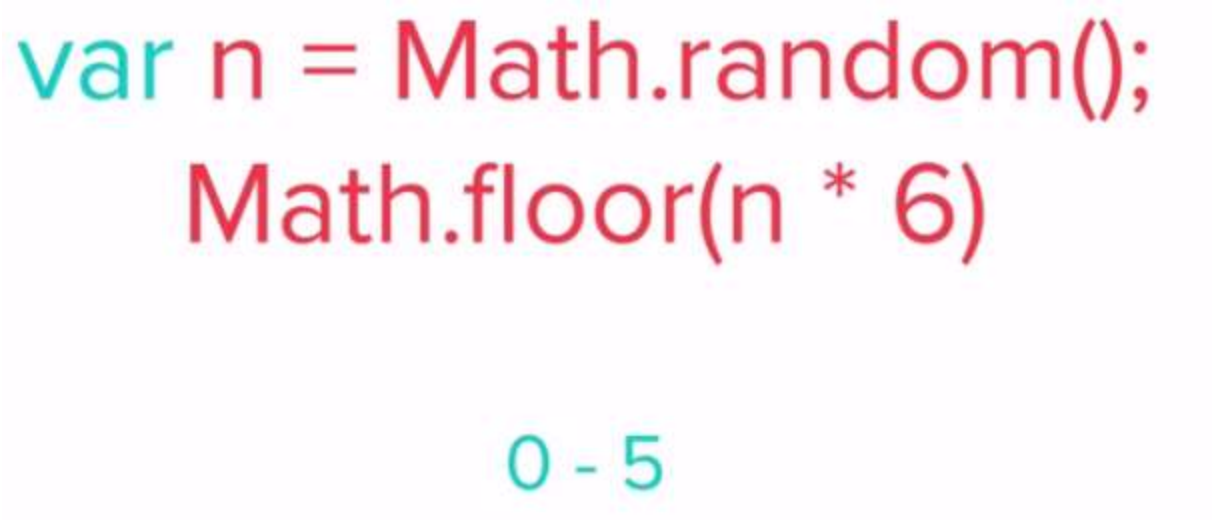
0 - 0.9999999999999999

Random Number Generation

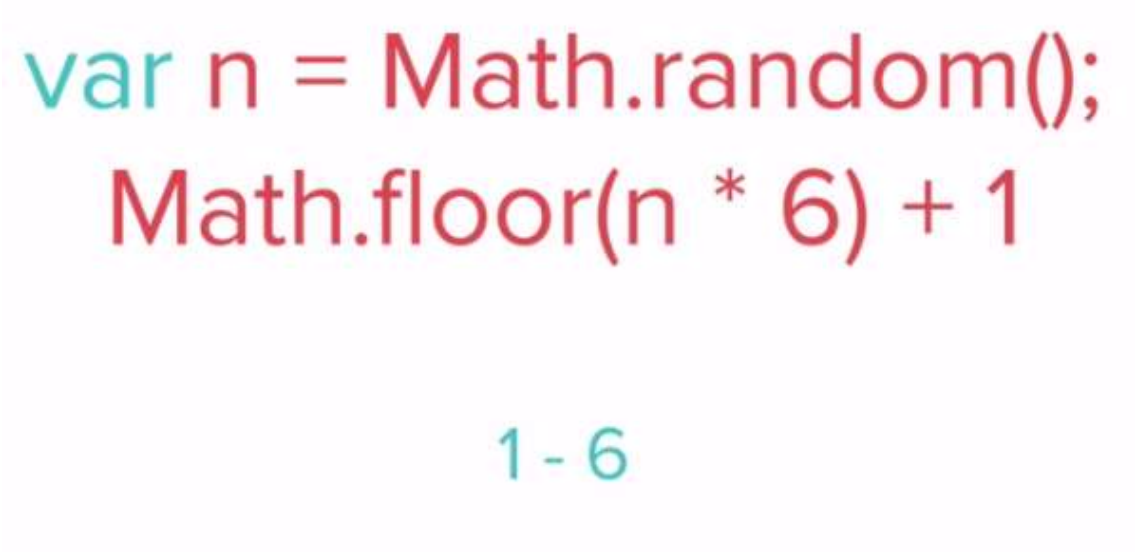
```
var n = Math.random();
n * 6
```

For dice number generator because dice has 6 sides

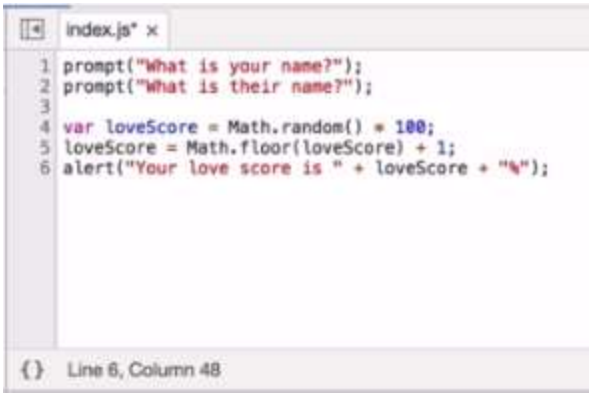
0 - 5.9999999999999999



How to generate perfect random number fir dice.



And we know that dice number range is from 1-6.



Love Calculator:

```
//prompt("What is your name?);
//prompt("What is their name?);

var loveScore = Math.random()*100;
loverScore = Math.floor(loveScore);
loveScore = Math.floor(loveScore)+1;
alert("Your love score is: "+loveScore+"%");
```