

Tower of Hanoi puzzle

Tower of Hanoi puzzle

Algorithm

- With 3 disks, the puzzle can be solved in 7 moves.
- The minimal number of moves required to solve a Tower of Hanoi puzzle is $2^n - 1$, where n is the number of disks.

Finalize JavaScript code

```
<html>
  <head>
    <script>
      var numStep = 0;
      var numDishes = prompt('Enter the number of dishes: ');

      // Write one line code for the algorithm:  $2^n - 1$ 
      // Math.pow(4, 3) returns the value of the number 4 to the power of 3 (=4*4*4):

      _Write your code here_____

      alert('Totally need ' + numStep + ' steps')

    </script>
  </head>
  <body>
  </body>
</html>
```

Solution

```
<html>
  <head>
    <script>
      var numStep = 0;
      var numDishes = prompt('Enter the number of dishes: ');

      numStep = Math.pow(2,numDishes)-1;

      alert('Totally need ' + numStep + ' steps')
    </script>
  </head>
  <body>
  </body>
</html>
```