```
Last login: Thu Jul 24 18:50:04 on ttys000
^[[AUFs-MacBook-Pro:~ tianwenlan$ cd Documents/Courses/CS/"COP3503 Programming fmentals 2"/Homework/Hw03/
UFs-MacBook-Pro:Hw03 tianwenlan$ ./a.out
--------------------------------------------------------------------------------
        This a program to solve the Towers of Hanoi problem.
        You can enter different numbers of disks to play with.
================================================================================
        0-exit
        1-Show the time to solve the tower of Hanoi problem with differnt number of disks
        2-Draw the graph time vs. number of disks
        3-Display the contents of all three towers every time a disk is moved
        4-Unshown the content of the towers
        5-Show menu
================================================================================
> 1
please enter the enter of disks you want to play:
(enter[0] to finish input)
10
[10]disks took 0.000202 seconds
please enter the enter of disks you want to play:
(enter[0] to finish input)
8
[8]disks took 6.2e-05 seconds
please enter the enter of disks you want to play:
(enter[0] to finish input)
6
[6]disks took 2.4e-05 seconds
please enter the enter of disks you want to play:
(enter[0] to finish input)
14
[14]disks took 0.002647 seconds
please enter the enter of disks you want to play:
(enter[0] to finish input)
12
[12]disks took 0.000646 seconds
please enter the enter of disks you want to play:
(enter[0] to finish input)
0
> 2
y(time)
^
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|                         *
|                 *
|
--------------------------------------------------------------------------> x(number of disks)
> 3
please enter the enter of disks you want to play:
enter [0] to end input
5
Tower 0: 5 4 3 2 1
Tower 1:
Tower 2:
=======================
Tower 0: 5 4 3 2
Tower 1:
Tower 2: 1
=======================
Tower 0: 5 4 3
Tower 1: 2
Tower 2: 1
```

```
========================
Tower 0: 5 4 3
Tower 1: 2 1
Tower 2:
========================
Tower 0: 5 4
Tower 1: 2 1
Tower 2: 3
========================
Tower 0: 5 4 1
Tower 1: 2
Tower 2: 3
========================
Tower 0: 5 4 1
Tower 1:
Tower 2: 3 2
========================
Tower 0: 5 4
Tower 1:
Tower 2: 3 2 1
========================
Tower 0: 5
Tower 1: 4
Tower 2: 3 2 1
========================
Tower 0: 5
Tower 1: 4 1
Tower 2: 3 2
========================
Tower 0: 5 2
Tower 1: 4 1
Tower 2: 3
========================
Tower 0: 5 2 1
Tower 1: 4
Tower 2: 3
========================
Tower 0: 5 2 1
Tower 1: 4 3
Tower 2:
========================
Tower 0: 5 2
Tower 1: 4 3
Tower 2: 1
========================
Tower 0: 5
Tower 1: 4 3 2
Tower 2: 1
========================
Tower 0: 5
Tower 1: 4 3 2 1
Tower 2:
========================
Tower 0:
Tower 1: 4 3 2 1
Tower 2: 5
========================
Tower 0: 1
Tower 1: 4 3 2
Tower 2: 5
========================
Tower 0: 1
Tower 1: 4 3
Tower 2: 5 2
========================
Tower 0:
Tower 1: 4 3
Tower 2: 5 2 1
========================
Tower 0: 3
Tower 1: 4
Tower 2: 5 2 1
========================
Tower 0: 3
Tower 1: 4 1
Tower 2: 5 2
========================
Tower 0: 3 2
Tower 1: 4 1
Tower 2: 5
========================
Tower 0: 3 2 1
Tower 1: 4
Tower 2: 5
========================
Tower 0: 3 2 1
Tower 1:
Tower 2: 5 4
========================
Tower 0: 3 2
Tower 1:
Tower 2: 5 4 1
========================
```

```
Tower 0: 3
Tower 1: 2
Tower 2: 5 4 1
=======================
Tower 0: 3
Tower 1: 2 1
Tower 2: 5 4
=======================
Tower 0:
Tower 1: 2 1
Tower 2: 5 4 3
=======================
Tower 0: 1
Tower 1: 2
Tower 2: 5 4 3
=======================
Tower 0: 1
Tower 1:
Tower 2: 5 4 3 2
=======================
Tower 0:
Tower 1:
Tower 2: 5 4 3 2 1
=======================
please enter the enter of disks you want to play:
enter [0] to end input
0
>
```