

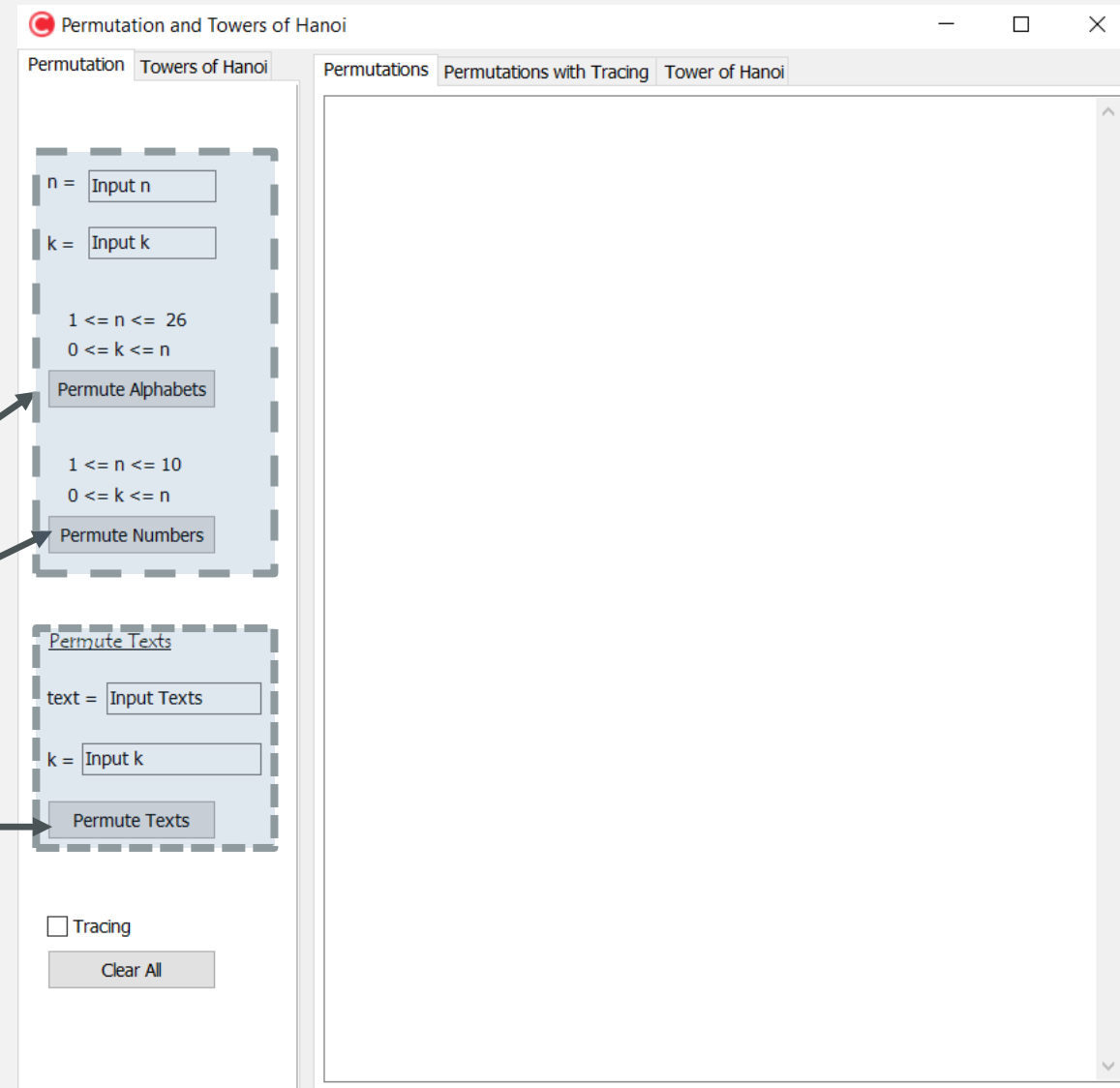
PERMUTATIONS AND TOWER OF HANOI

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PERMUTATIONS

There are three kinds of permutations.

1. Permutation of alphabets [a-z]
2. Permutation of Numbers [0-9]
3. Permutation of Texts [Eng & 中]



Permutation and Towers of Hanoi

Permutation Towers of Hanoi

Permutations Permutations with Tracing Tower of Hanoi

n = Input n

k = Input k

$1 \leq n \leq 26$
 $0 \leq k \leq n$

Permute Alphabets

$1 \leq n \leq 10$
 $0 \leq k \leq n$

Permute Numbers

Permute Texts

text = Input Texts

k = Input k

Permute Texts

☐ Tracing

Clear All

PERMUTATION OF ALPHABETS

Input how many alphabets (n) you want to permute and where to start (k).

Here's the range of n and k

Click here to start permuting!

Permutation and Towers of Hanoi

Permutation Towers of Hanoi **Permutations** Permutations with Tracing Tower of Hanoi

n = 6
k = 4

1 <= n <= 26
0 <= k <= n

Permute Alphabets

1 <= n <= 10
0 <= k <= n

Permute Numbers

Permute Texts

text = Input Texts
k = Input k

Permute Texts

☐ Tracing

Clear All

ABCDEF [0]
ABCDFE [1]

The result of the permutation will be shown here!

PERMUTATION OF ALPHABETS WITH TRACING

Permutation and Towers of Hanoi

Permutation Towers of Hanoi Permutations **Permutations with Tracing** Tower of Hanoi

n =

k =

1 <= n <= 26
0 <= k <= n

Permute Alphabets

1 <= n <= 10
0 <= k <= n

Permute Numbers

Permute Texts

text =

k =

Permute Texts

☒ Tracing

Clear All

Permutation of 6 alphabets starting at the 5th letter.
->Now list = [ABCDEF]
i = 4, k = 4 // SWAP E and E
->Now list = [ABCDEF]
(n, k) = (6, 5), k == n - 1 => print!
ABCDEF [0]
->Now list = [ABCDEF]
i = 4, k = 4 // SWAP E and E
->Now list = [ABCDEF]
i = 5, k = 4 // SWAP E and F
->Now list = [ABCD FE]
(n, k) = (6, 5), k == n - 1 => print!
ABCD FE [1]
->Now list = [ABCD FE]
i = 5, k = 4 // SWAP F and E

When the checkbox “Tracing” is checked, the process of the permutation in the program will be shown.

PERMUTATION OF NUMBERS

Input how many numbers (n) you want to permute and where to start (k).

Here's the range of n and k

Click here to start permuting!

Permutation and Towers of Hanoi

Permutation Towers of Hanoi Permutations Permutations with Tracing Tower of Hanoi

n = 7
k = 3

1 <= n <= 26
0 <= k <= n
Permute Alphabets

1 <= n <= 10
0 <= k <= n
Permute Numbers

Permute Texts
text = Input Texts
k = Input k
Permute Texts

☒ Tracing
Clear All

0123456 [0]
0123465 [1]
0123546 [2]
0123564 [3]
0123654 [4]
0123645 [5]
0124356 [6]
0124365 [7]
0124536 [8]
0124563 [9]
0124653 [10]
0124635 [11]
0125436 [12]
0125463 [13]
0125346 [14]
0125364 [15]
0125634 [16]
0125643 [17]
0126453 [18]
0126435 [19]
0126543 [20]
0126534 [21]
0126354 [22]
0126345 [23]
0123456 [0]
0123465 [1]
0123546 [2]
0123564 [3]
0123654 [4]
0123645 [5]
0124356 [6]
0124365 [7]
0124536 [8]
0124563 [9]
0124653 [10]
0124635 [11]
0125436 [12]
0125463 [13]
0125346 [14]
0125364 [15]
0125634 [16]
0125643 [17]
0126453 [18]
0126435 [19]
0126543 [20]

The result of the permutation will be shown here!

PERMUTATION OF NUMBERS WITH TRACING

When the checkbox “Tracing” is checked, the process of the permutation in the program will be shown.

Permutation and Towers of Hanoi

Permutation Towers of Hanoi Permutations Permutations with Tracing Tower of Hanoi

$n = 7$

$k = 3$

$1 \leq n \leq 26$
 $0 \leq k \leq n$

Permute Alphabets

$1 \leq n \leq 10$
 $0 \leq k \leq n$

Permute Numbers

Permute Texts

text = Input Texts

k = Input k

Permute Texts

☒ Tracing

Clear All

```
(n, k) = (7, 6), k == n - 1 => print!  
0126435 [19]  
->Now list = [0126435]  
i = 6, k = 5 // SWAP 3 and 5  
->Now list = [0126453]  
i = 4, k = 4 // SWAP 4 and 4  
->Now list = [0126453]  
i = 5, k = 4 // SWAP 4 and 5  
->Now list = [0126543]  
i = 5, k = 5 // SWAP 4 and 4  
->Now list = [0126543]  
(n, k) = (7, 6), k == n - 1 => print!  
0126543 [20]  
->Now list = [0126543]  
i = 5, k = 5 // SWAP 4 and 4  
->Now list = [0126543]  
i = 6, k = 5 // SWAP 4 and 3  
->Now list = [0126534]  
(n, k) = (7, 6), k == n - 1 => print!  
0126534 [21]  
->Now list = [0126534]  
i = 6, k = 5 // SWAP 3 and 4  
->Now list = [0126543]  
i = 5, k = 4 // SWAP 5 and 4  
->Now list = [0126453]  
i = 6, k = 4 // SWAP 4 and 3  
->Now list = [0126354]  
i = 5, k = 5 // SWAP 5 and 5  
->Now list = [0126354]  
(n, k) = (7, 6), k == n - 1 => print!  
0126354 [22]  
->Now list = [0126354]  
i = 5, k = 5 // SWAP 5 and 5  
->Now list = [0126354]  
i = 6, k = 5 // SWAP 5 and 4  
->Now list = [0126345]  
(n, k) = (7, 6), k == n - 1 => print!  
0126345 [23]  
->Now list = [0126345]  
i = 6, k = 5 // SWAP 4 and 5  
->Now list = [0126354]  
i = 6, k = 4 // SWAP 3 and 4  
->Now list = [0126453]  
i = 6, k = 3 // SWAP 6 and 3
```

PERMUTATION OF TEXTS (中文&ENG)

Permutation and Towers of Hanoi

Permutation Towers of Hanoi **Permutations** Permutations with Tracing Tower of Hanoi

n =

k =

1 <= n <= 26
0 <= k <= n

Permute Alphabets

1 <= n <= 10
0 <= k <= n

Permute Numbers

Permute Texts

text =

k =

Permute Texts

☐ Tracing

Clear All

今天是星期二 [0]
今天是星期二 [1]
今天是星期二 [2]
今天是星期二 [3]
今天是星期二 [4]
今天是星期二 [5]

Input the text you want to permute and where to start

Click here to start permuting!

The result of the permutation will be shown here!

PERMUTATION OF TEXTS (中文&ENG)

When the checkbox “Tracing” is checked, the process of the permutation in the program will be shown.

Permutation and Towers of Hanoi

Permutation Towers of Hanoi

Permutations Permutations with Tracing Tower of Hanoi

n =

k =

1 <= n <= 26
0 <= k <= n

Permute Alphabets

1 <= n <= 10
0 <= k <= n

Permute Numbers

Permute Texts

text =

k =

Permute Texts

☒ Tracing

Clear All

```
i = 6, k = 5 // SWAP 期 and 二
->Now list = [今天是星期二]
(n, k) = (6, 6), k == n - 1 => print!
今天是星期二 [1]
->Now list = [今天是星期二]
i = 6, k = 5 // SWAP 二 and 期
->Now list = [今天是星期二]
i = 4, k = 4 // SWAP 星 and 星
->Now list = [今天是星期二]
i = 5, k = 4 // SWAP 星 and 期
->Now list = [今天是星期二]
i = 5, k = 5 // SWAP 星 and 星
->Now list = [今天是星期二]
(n, k) = (6, 6), k == n - 1 => print!
今天是星期二 [2]
->Now list = [今天是星期二]
i = 5, k = 5 // SWAP 星 and 星
->Now list = [今天是星期二]
i = 6, k = 5 // SWAP 星 and 二
->Now list = [今天是星期二]
(n, k) = (6, 6), k == n - 1 => print!
今天是星期二 [3]
->Now list = [今天是星期二]
i = 6, k = 5 // SWAP 二 and 星
->Now list = [今天是星期二]
i = 5, k = 4 // SWAP 期 and 星
->Now list = [今天是星期二]
i = 6, k = 4 // SWAP 星 and 二
->Now list = [今天是星期二]
i = 5, k = 5 // SWAP 期 and 期
->Now list = [今天是星期二]
(n, k) = (6, 6), k == n - 1 => print!
今天是星期二 [4]
->Now list = [今天是星期二]
i = 5, k = 5 // SWAP 期 and 期
->Now list = [今天是星期二]
i = 6, k = 5 // SWAP 期 and 星
->Now list = [今天是星期二]
(n, k) = (6, 6), k == n - 1 => print!
今天是星期二 [5]
->Now list = [今天是星期二]
i = 6, k = 5 // SWAP 星 and 期
->Now list = [今天是星期二]
i = 6, k = 4 // SWAP 二 and 星
```


CLEAR ALL

Permutation and Towers of Hanoi

Permutation Towers of Hanoi

Permutations Permutations with Tracing Tower of Hanoi

n =

k =

$1 \leq n \leq 26$
 $0 \leq k \leq n$

Permute Alphabets

$1 \leq n \leq 10$
 $0 \leq k \leq n$

Permute Numbers

Permute Texts

text =

k =

Permute Texts

☐ Tracing

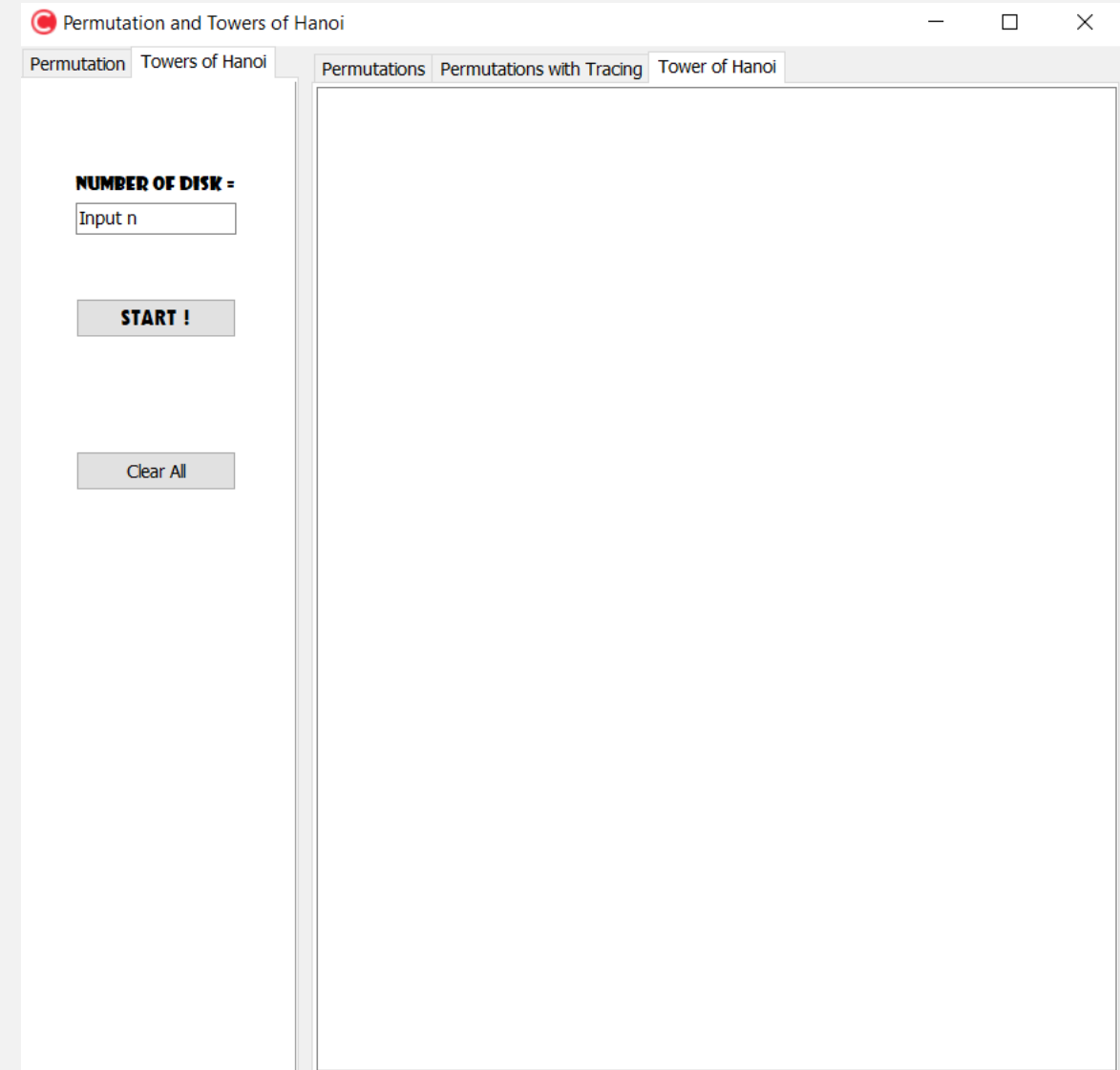
Clear All

Click “Clear All” button, then the interface will be as new as when it just started!

TOWER OF HANOI

Tower of Hanoi is a game that the objective of the puzzle is to move the entire stack to the last rod, obeying the following rules:

1. Only one disk may be moved at a time.
2. Each move consists of taking the upper disk from one of the stacks and placing it on top of another stack or on an empty rod.
3. No disk may be placed on top of a disk that is smaller than it.



TOWER OF HANOI

Permutation and Towers of Hanoi

Permutation Towers of Hanoi

NUMBER OF DISK =
3

START !

Clear All

Tower of Hanoi with 0 starts!

- Move disk 1 from A to C
- Move disk 1 from A to B
- Move disk 1 from C to B
- Move disk 1 from A to C
- Move disk 1 from B to A
- Move disk 1 from B to C
- Move disk 1 from A to C

Total steps -> 7

Enter how many disks
you want the puzzle have

Click her to start!

Click "Clear All" button, then
the interface will be as new as
when it just started!

Each step of moving
disks will be shown here!

THE END