Code:

```
def hanoi(N:int, sourceP:str, helperP:str, destP:str):
  if (N == 0):
    print("Cannot compute for 0 disc")
    return
  if (N == 1):
    print(f"Move disc 1 from {sourceP} to {destP}")
    return
  else:
    hanoi(N-1, sourceP, destP, helperP)
    print(f"Move disc {N} from {sourceP} to {destP}")
    hanoi(N-1, helperP, sourceP, destP)

N = int(input("Enter number of rings: "))
hanoi(N, "A", "B", "C")
print(f"Moves: {(N*N)-1}")
```

Output:

A. For 3 number of rings

```
...   Move disc 1 from A to C
      Move disc 2 from A to B
      Move disc 1 from C to B
      Move disc 3 from A to C
      Move disc 1 from B to A
      Move disc 2 from B to C
      Move disc 1 from A to C
      Moves: 8
```

B. For 4 number of rings

```
...   Move disc 1 from A to B
      Move disc 2 from A to C
      Move disc 1 from B to C
      Move disc 3 from A to B
      Move disc 1 from C to A
      Move disc 2 from C to B
      Move disc 1 from A to B
      Move disc 4 from A to C
      Move disc 1 from B to C
      Move disc 2 from B to A
      Move disc 1 from C to A
      Move disc 3 from B to C
      Move disc 1 from A to B
      Move disc 2 from A to C
      Move disc 1 from B to C
      Moves: 15
```