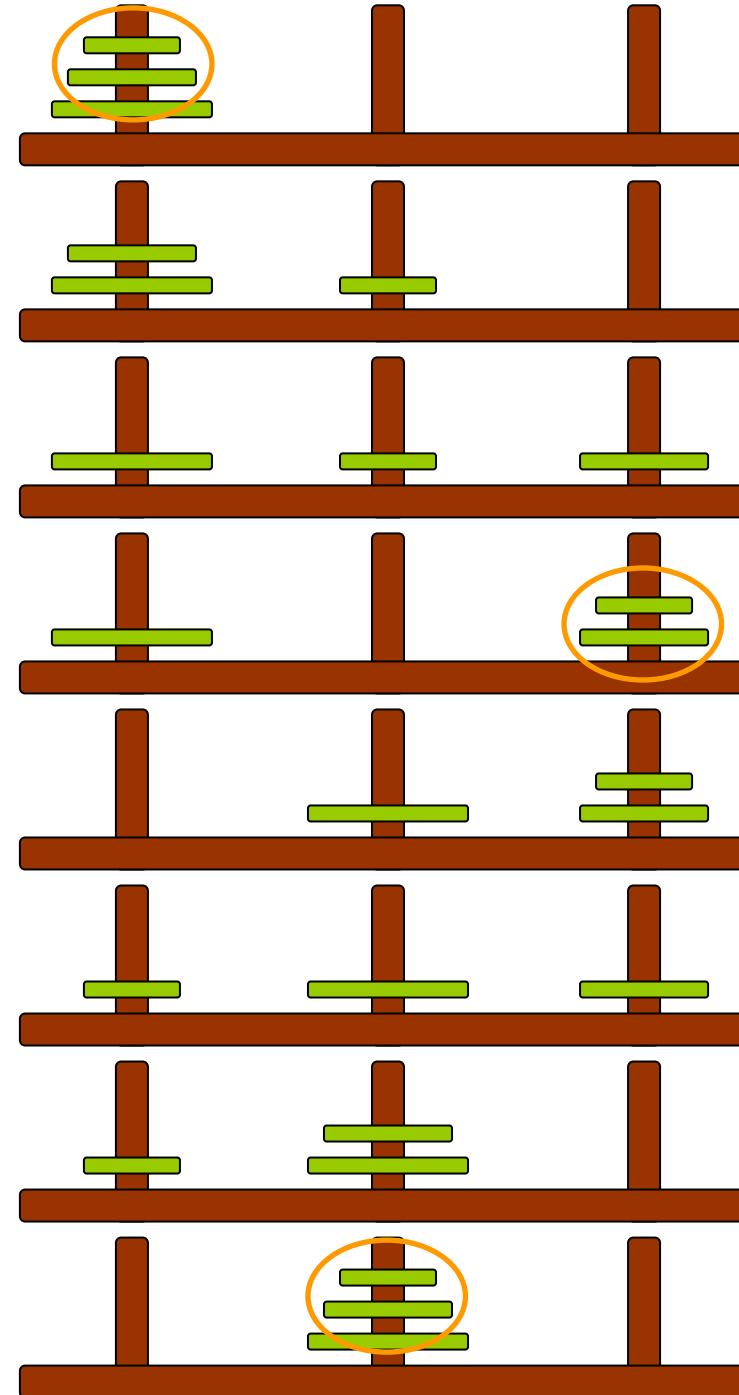


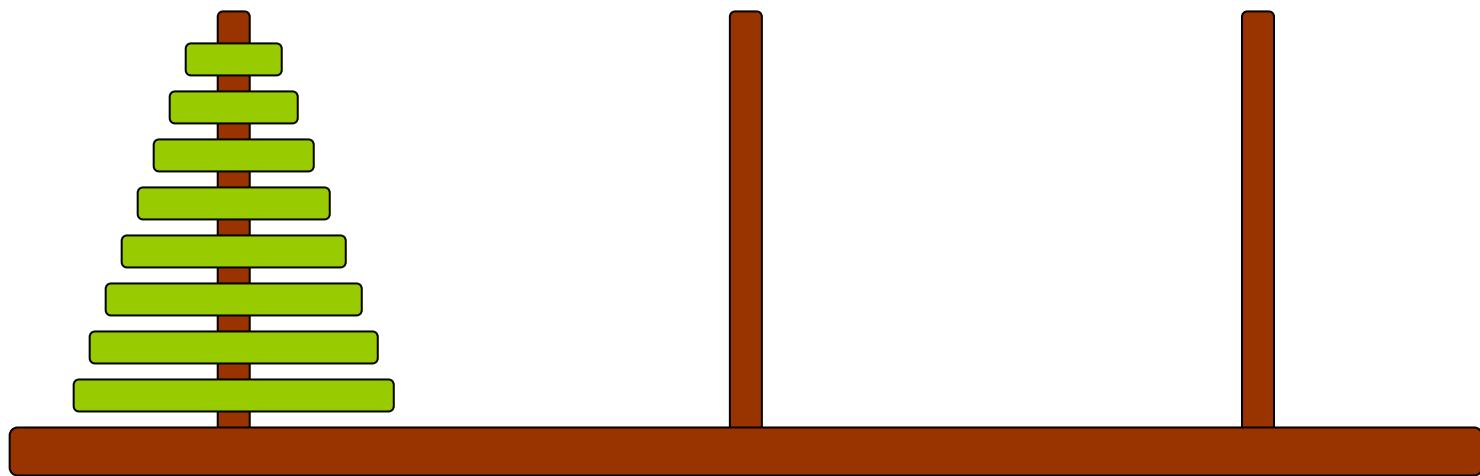
# Atelier « tours de Hanoï » (récurrence et récursivité)

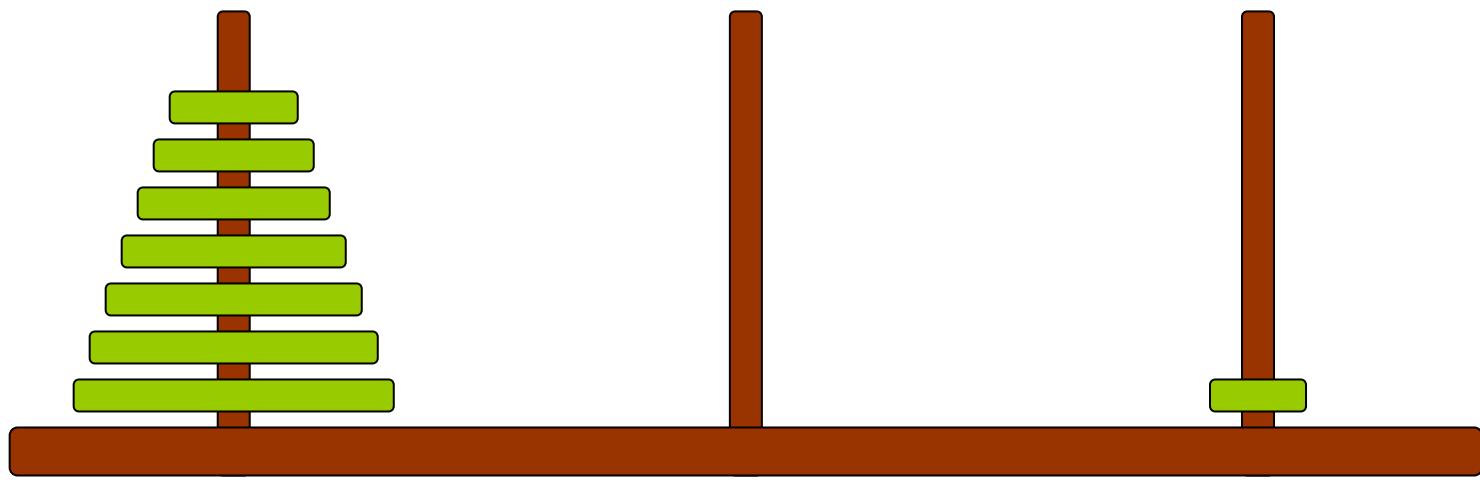
Renaud Sirdey

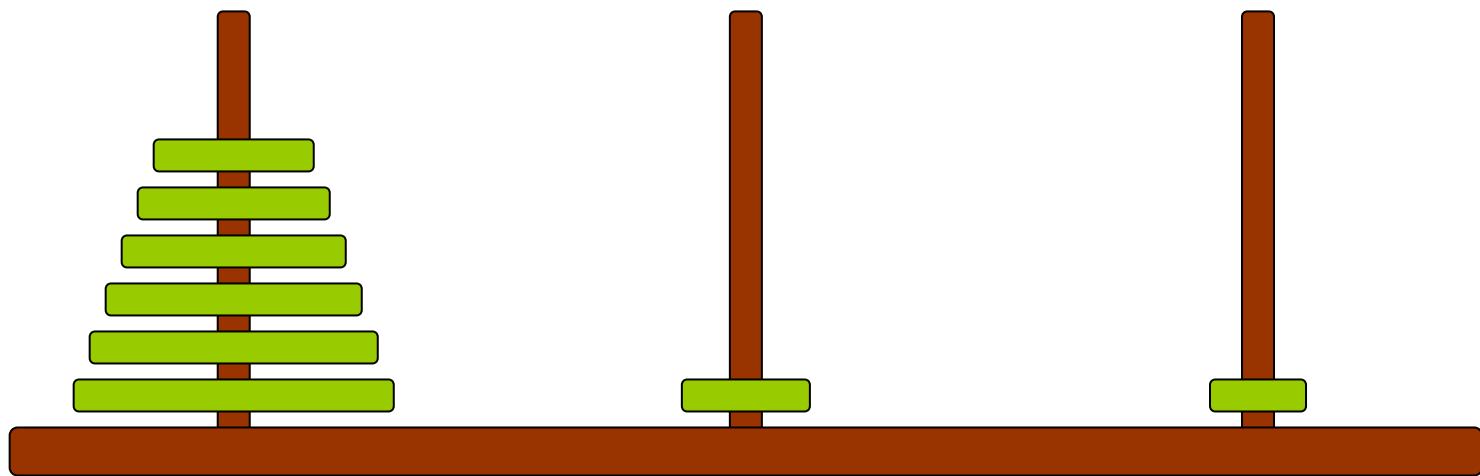
# Mode d'emploi

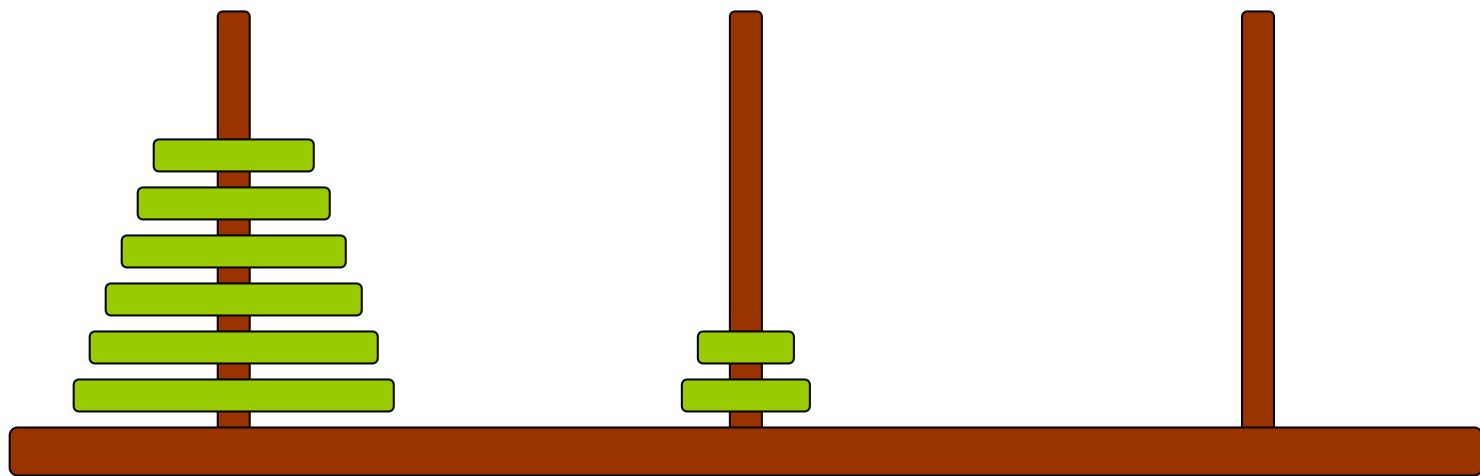
- **Equipement :**
  - Un jeu des tours de Hanoï assez grand.
- **Par groupe de 6 ou 7 enfants :**
  - Leur faire résoudre le problème avec deux disques (trivial).
  - Leur faire résoudre le problème avec trois disques.
    - En déplaçant donc deux fois la tour à deux disques (cf. ci-contre).
  - Et c'est parti !

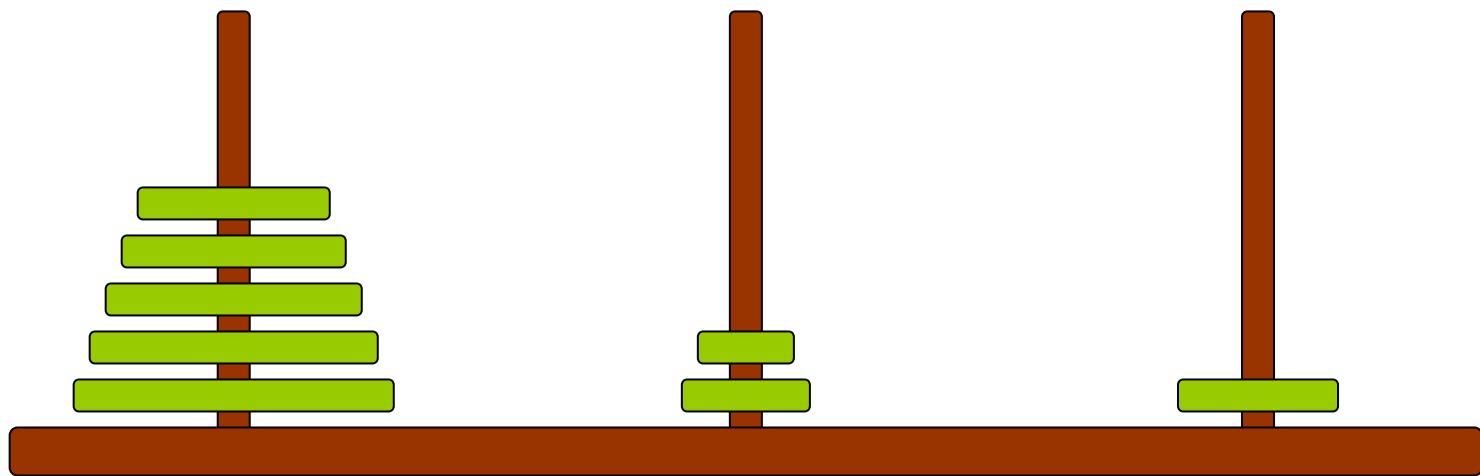


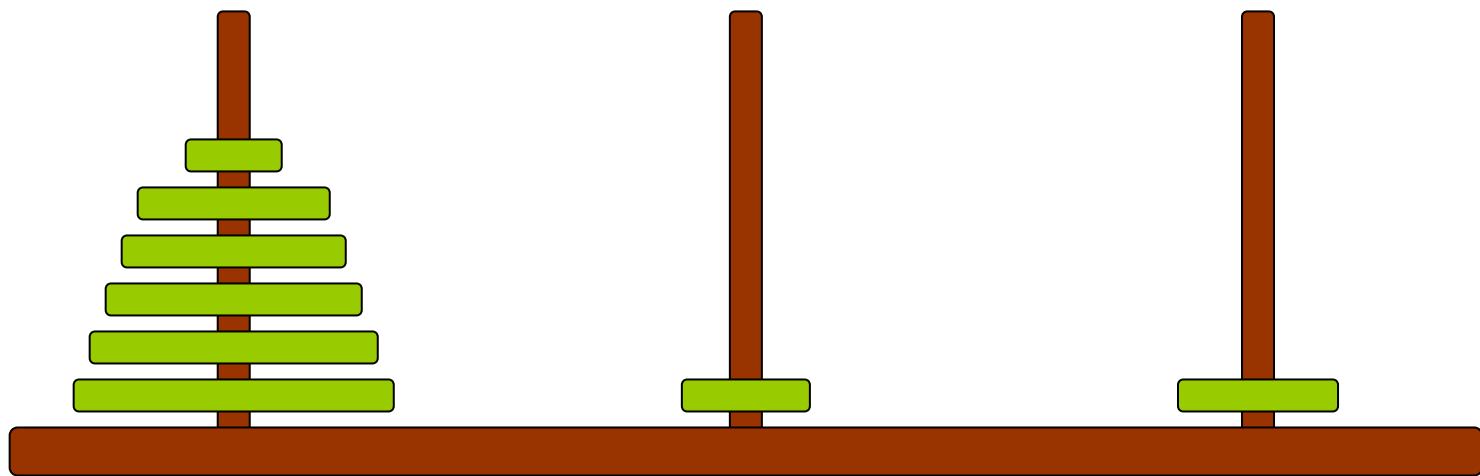


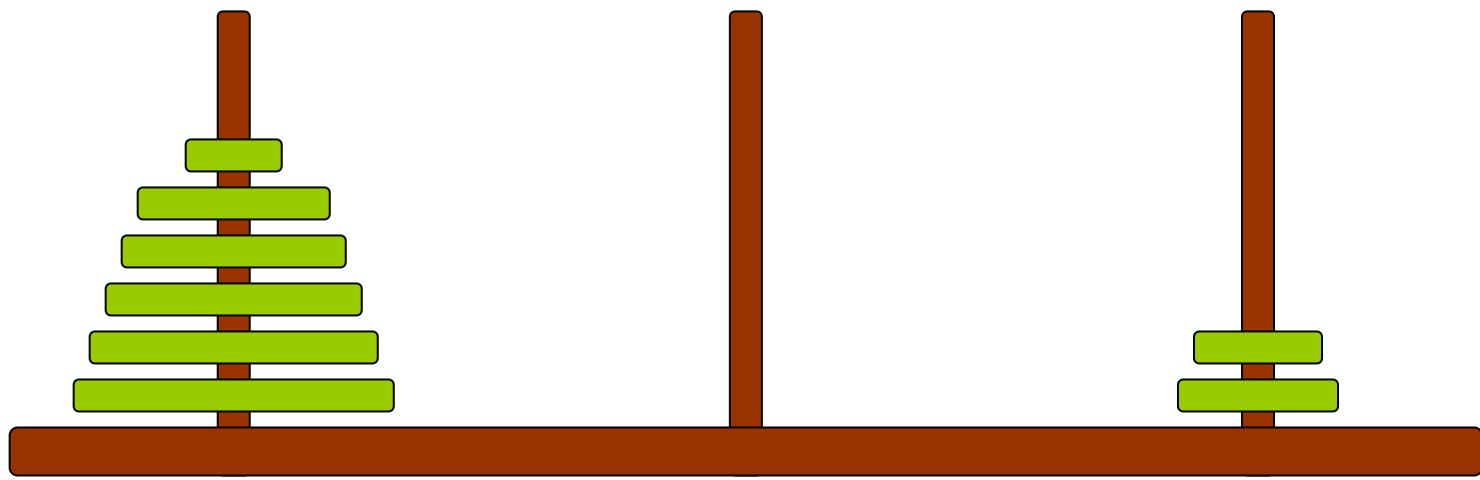


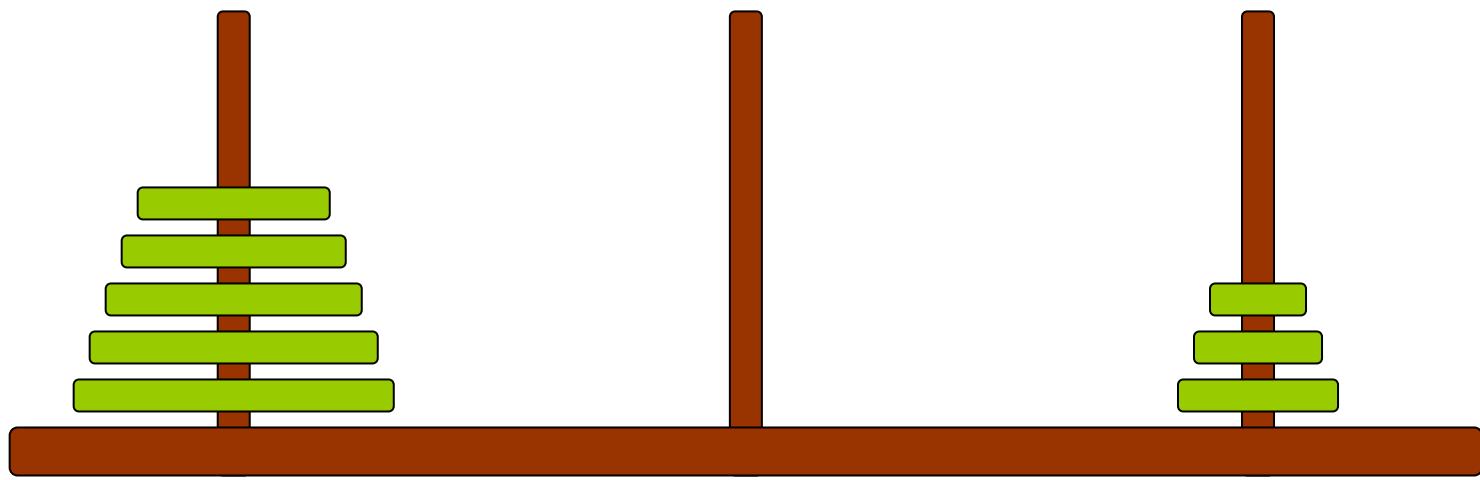


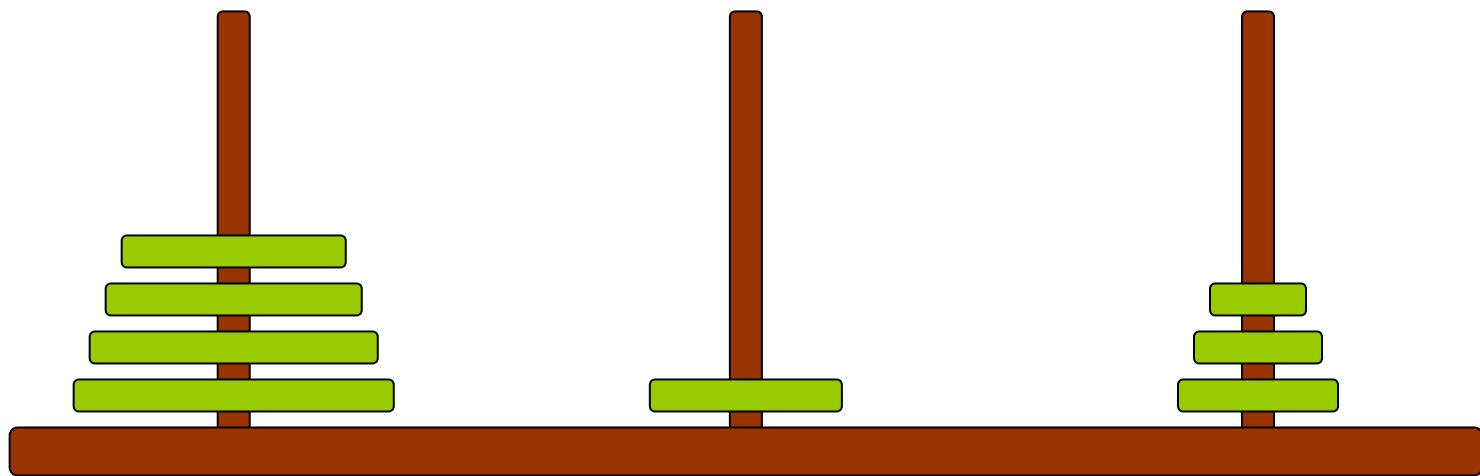


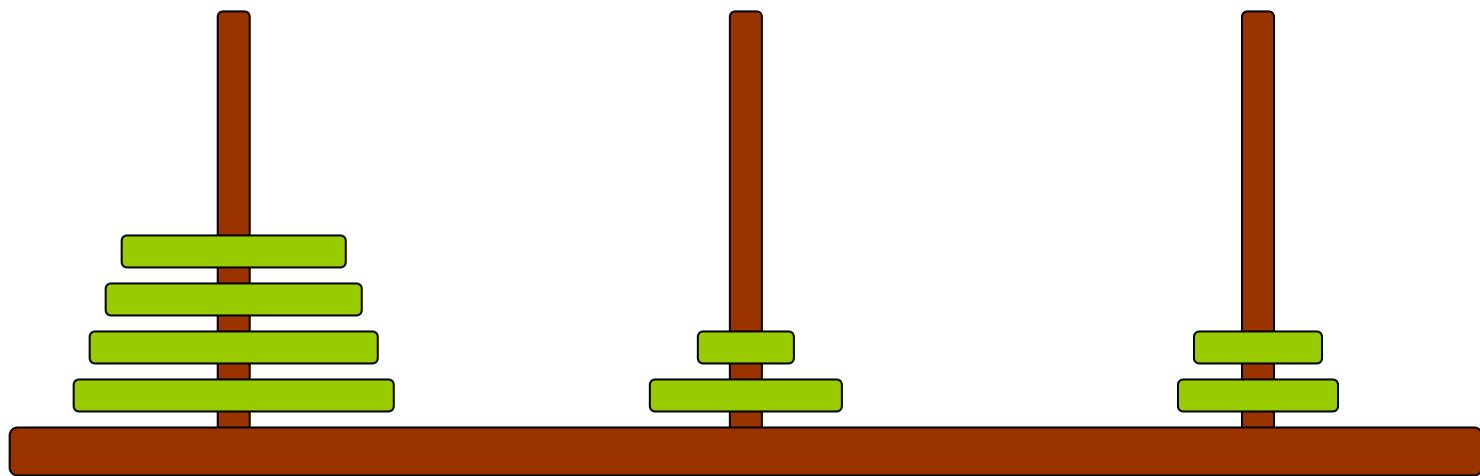


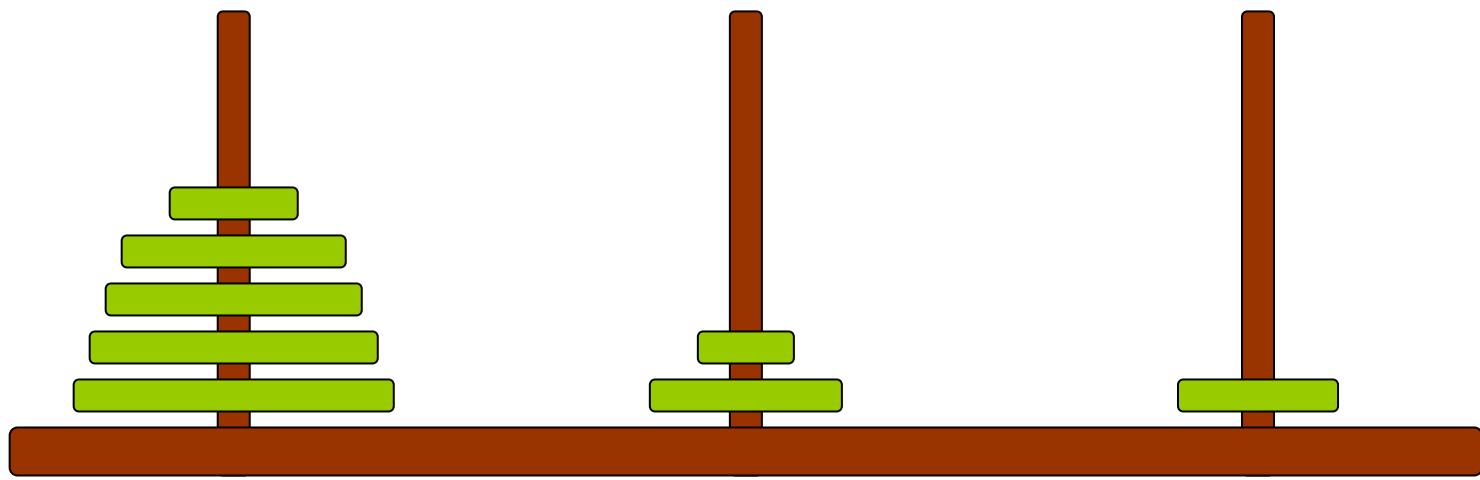


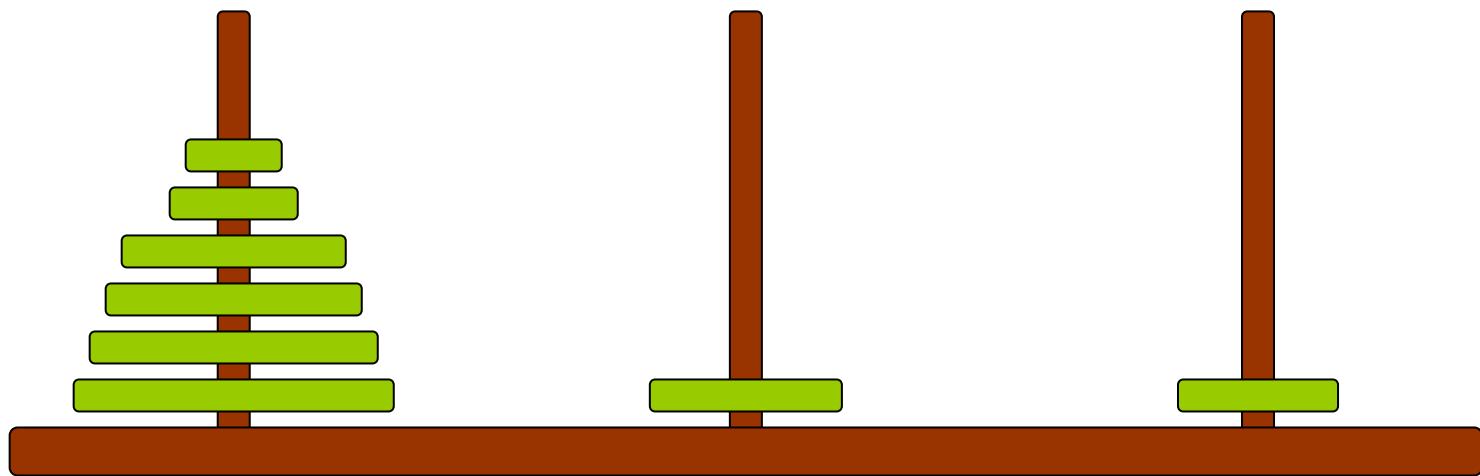


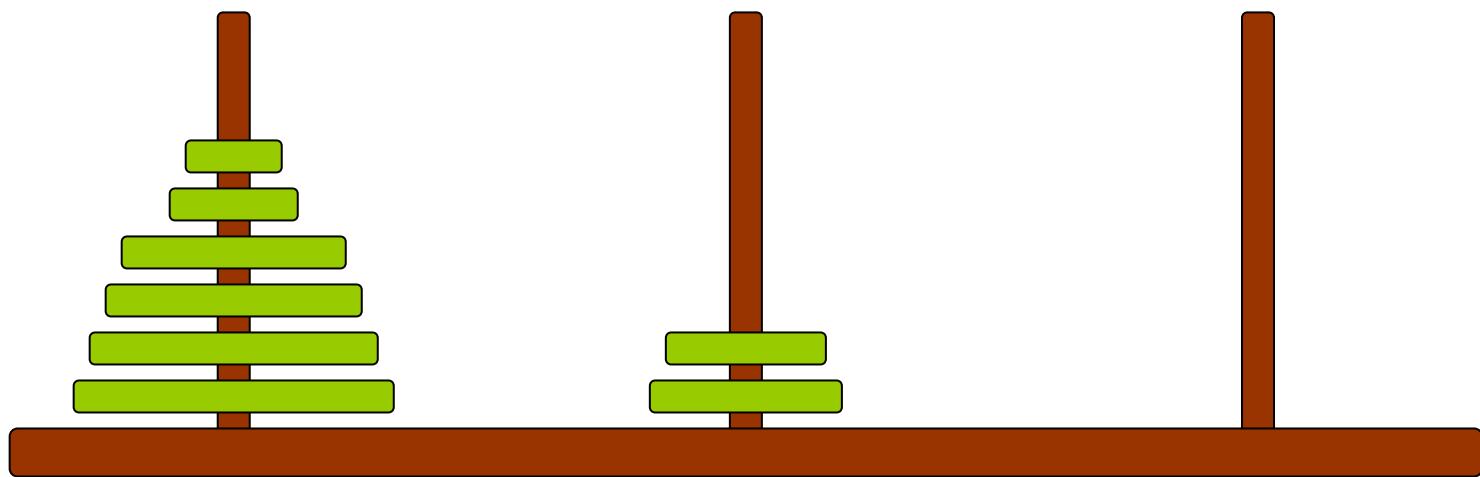


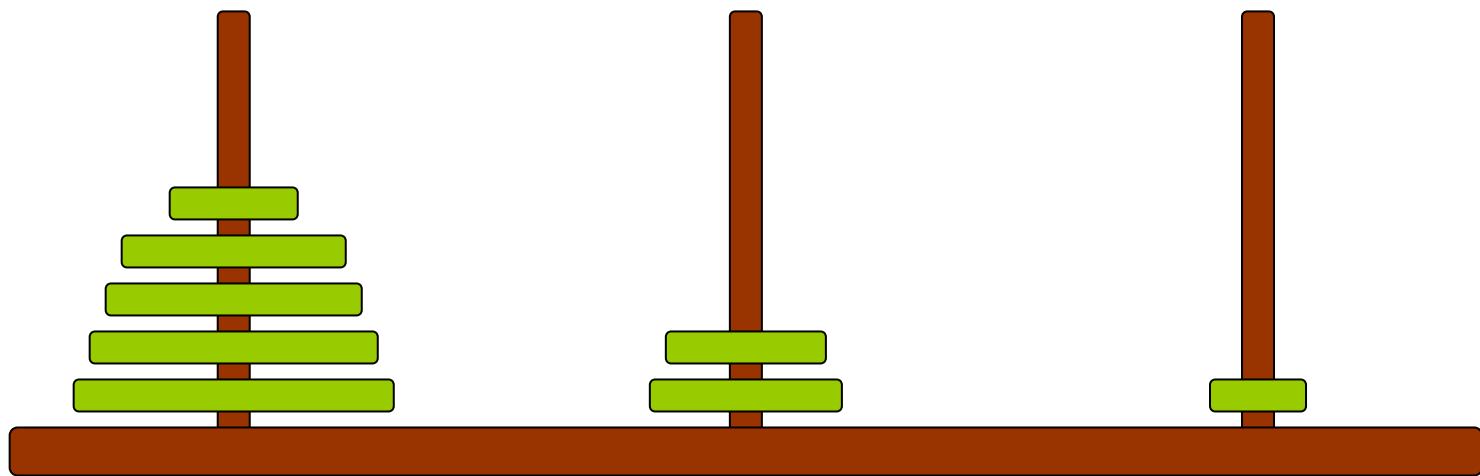


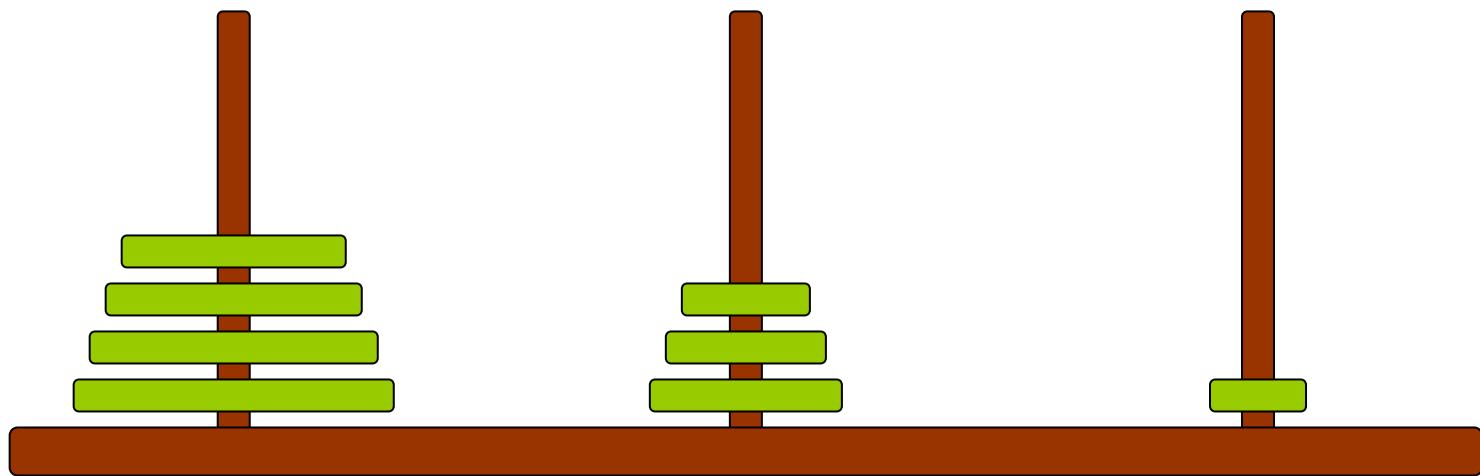


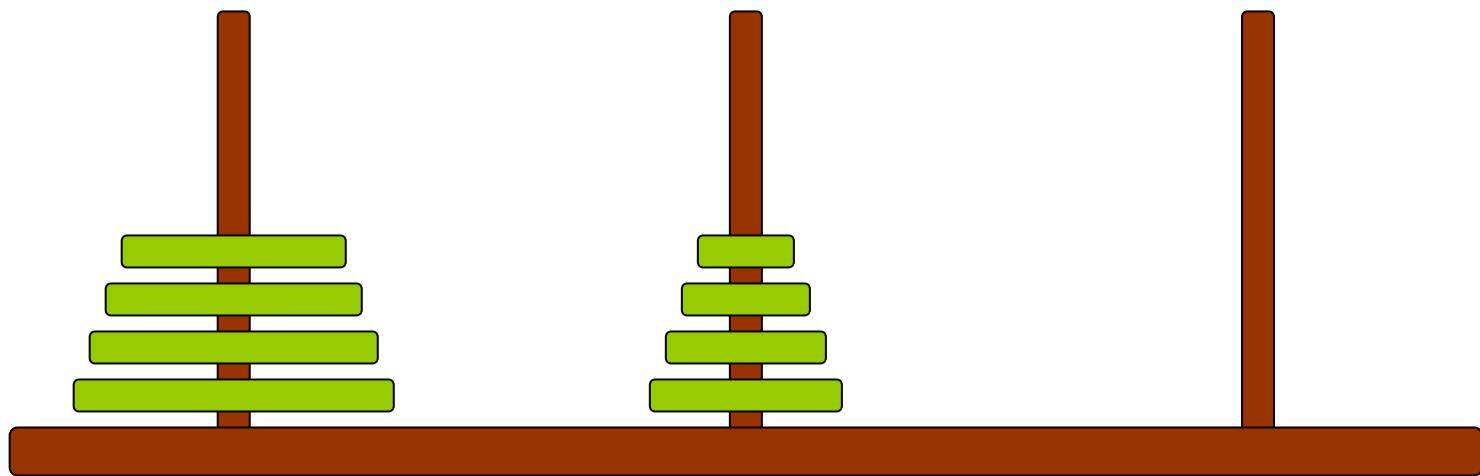


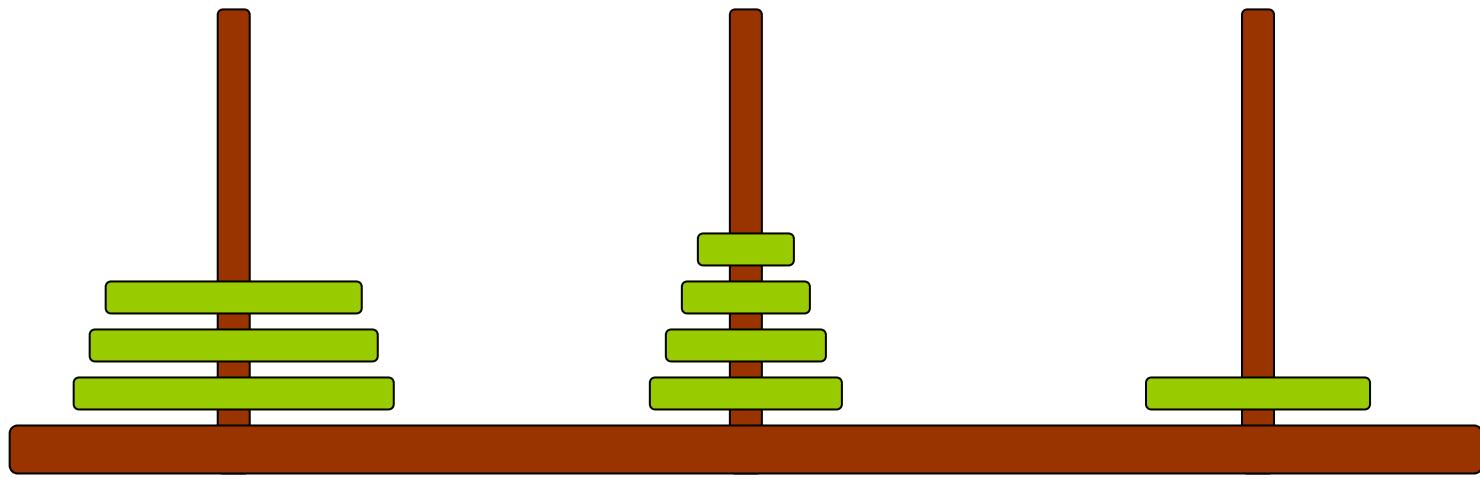


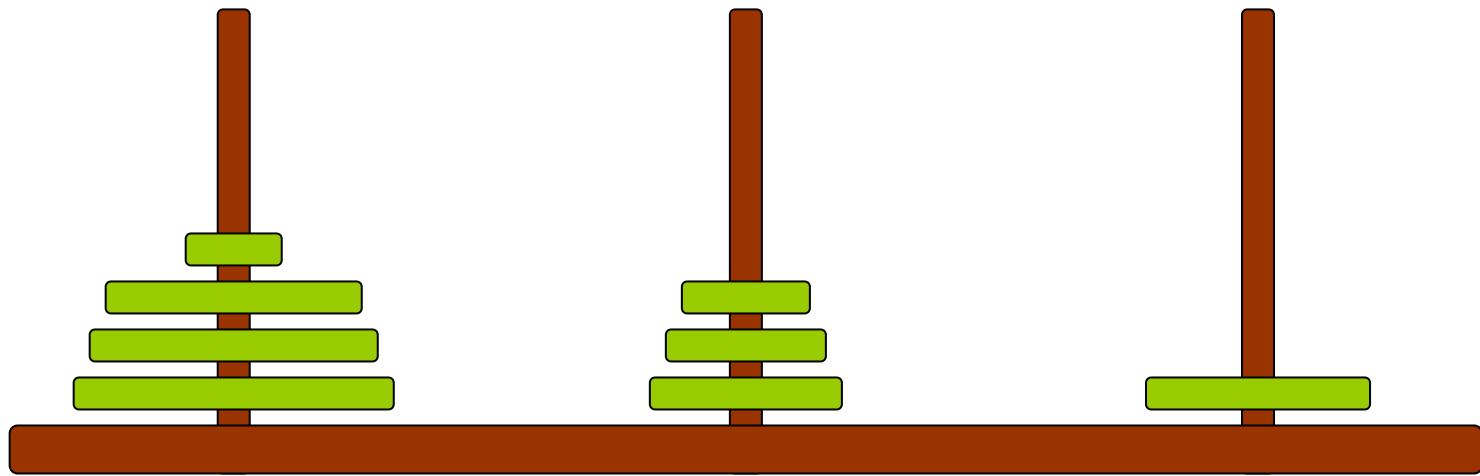


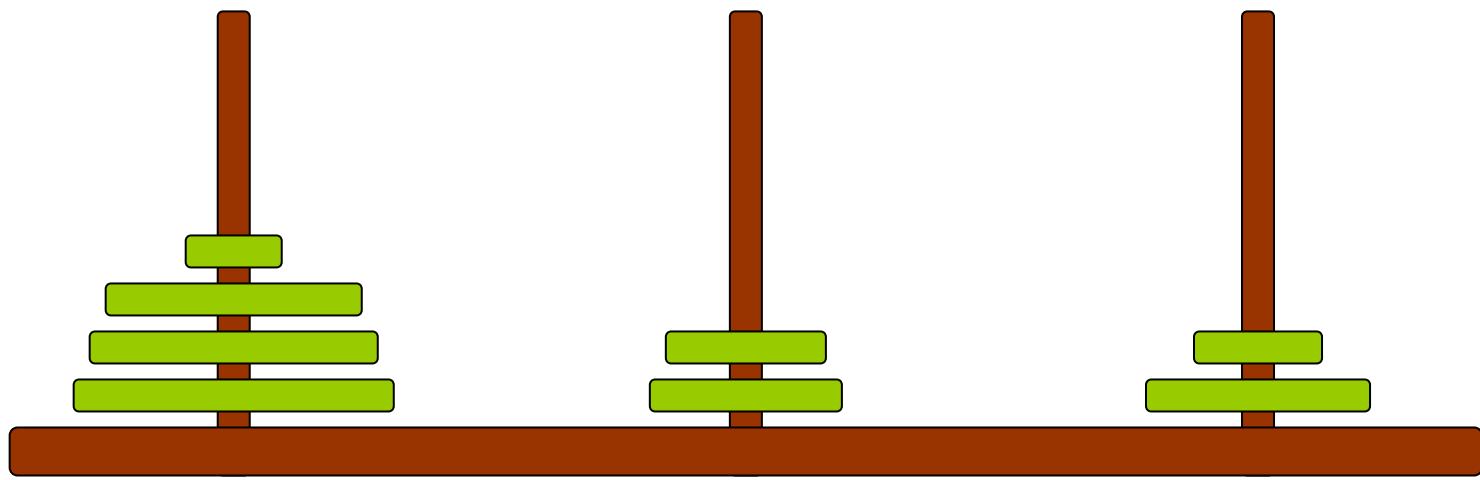


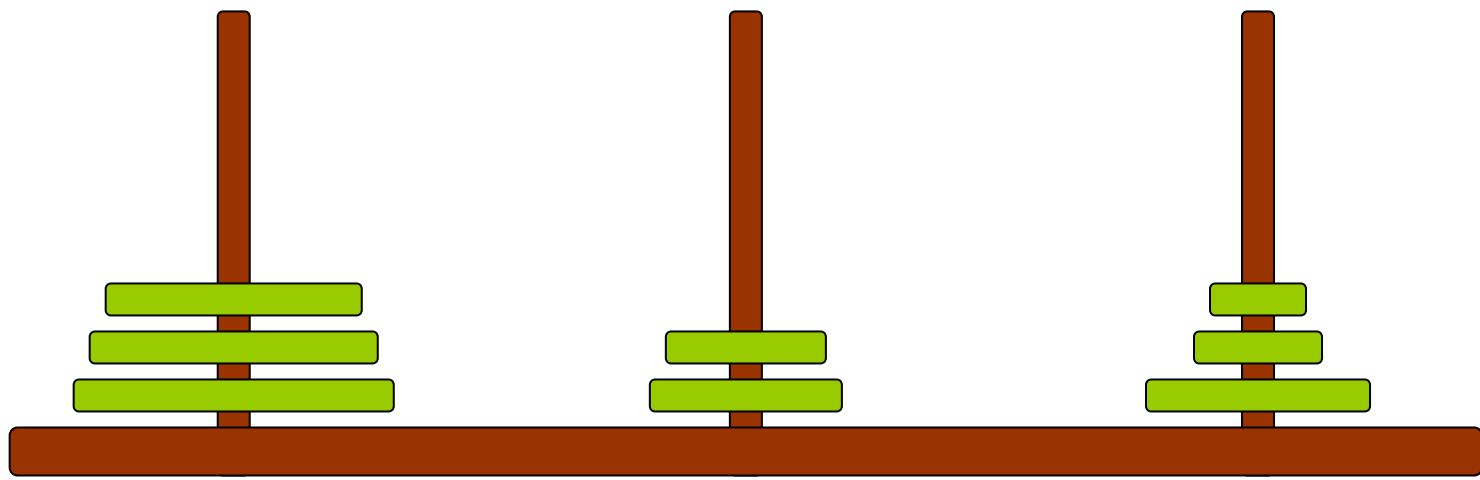


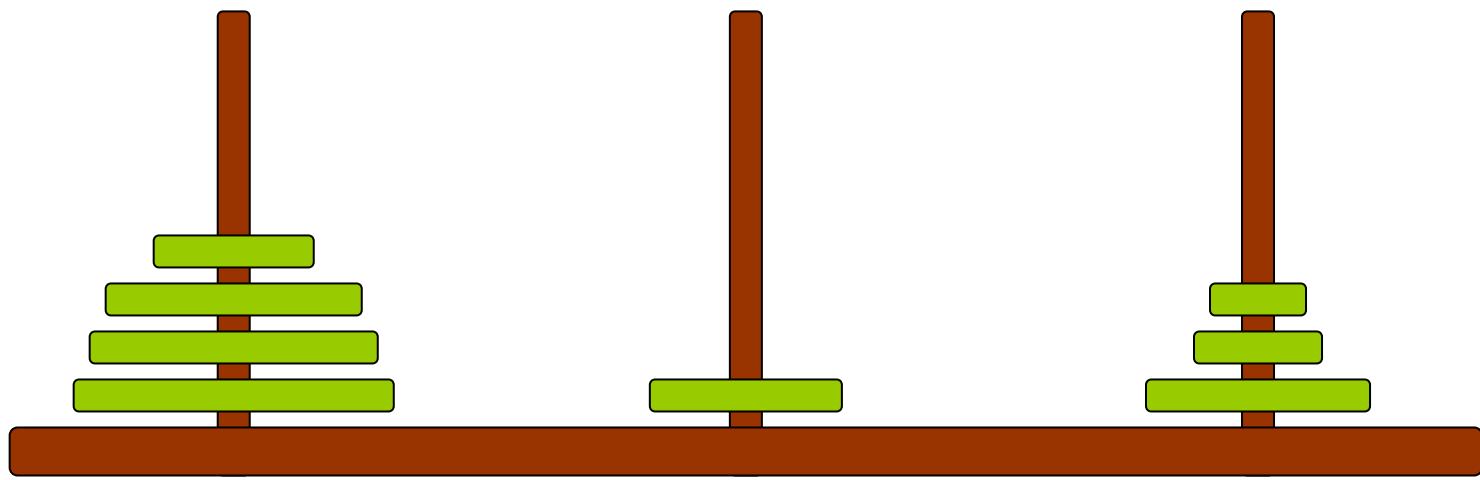


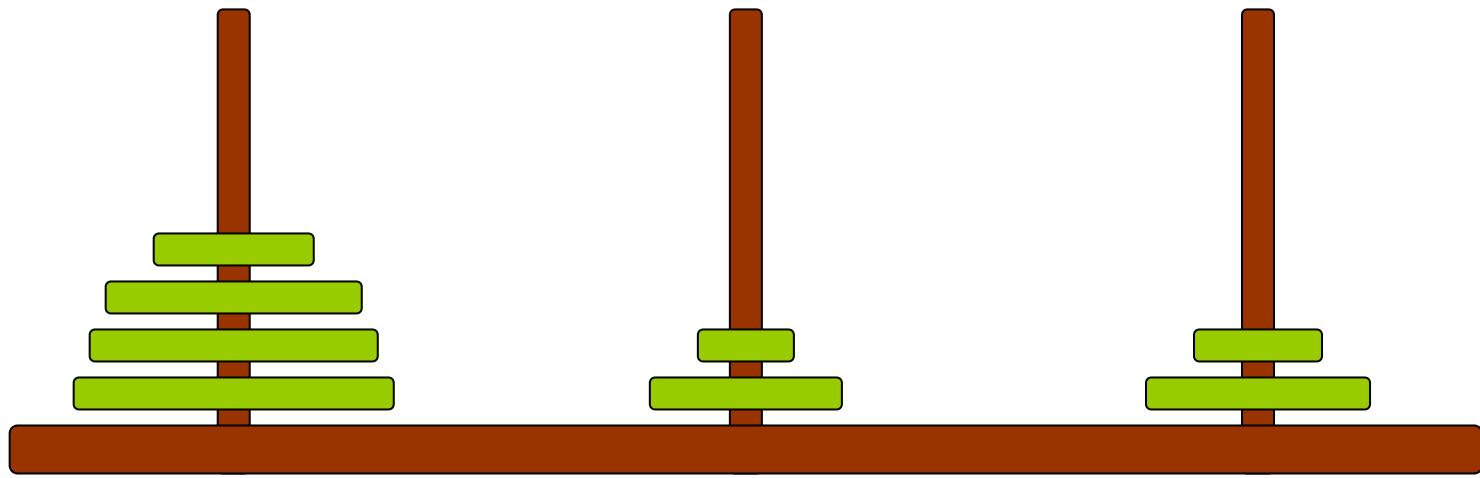


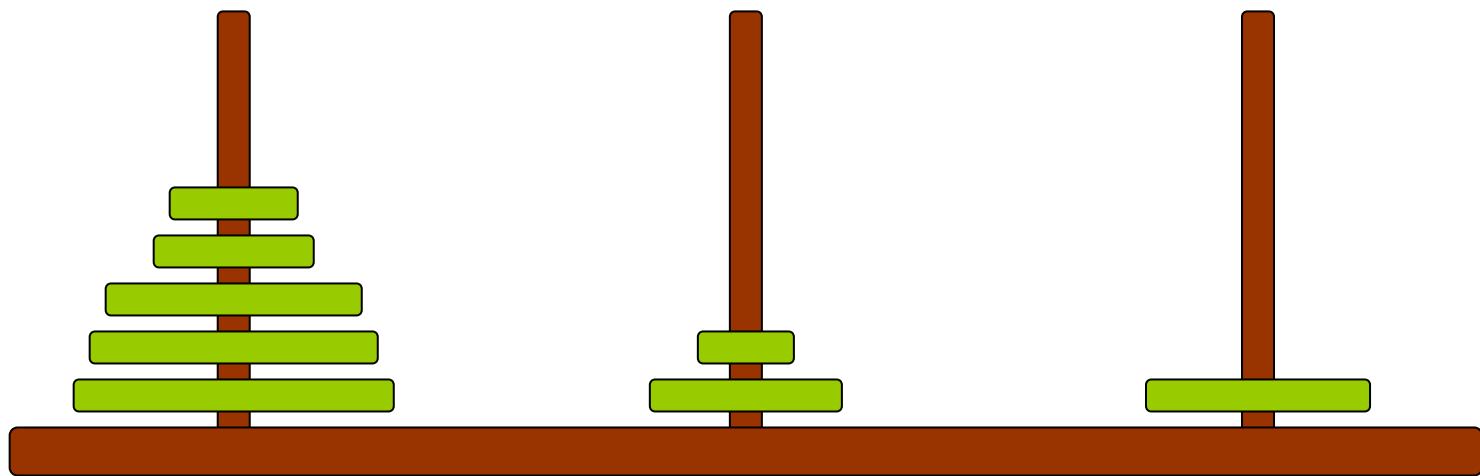


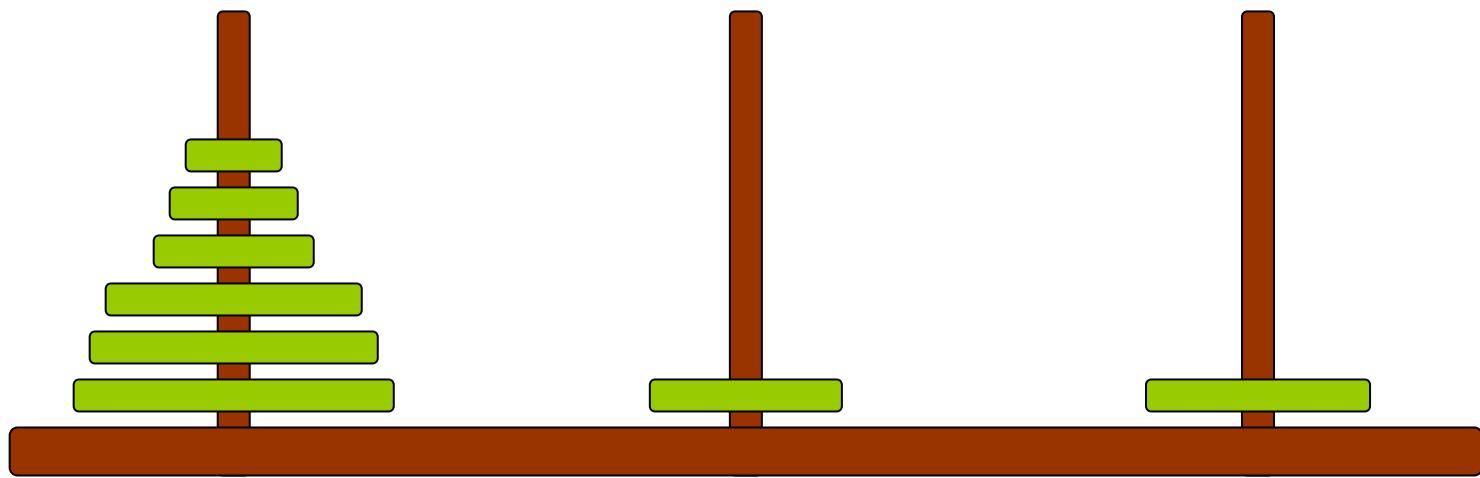


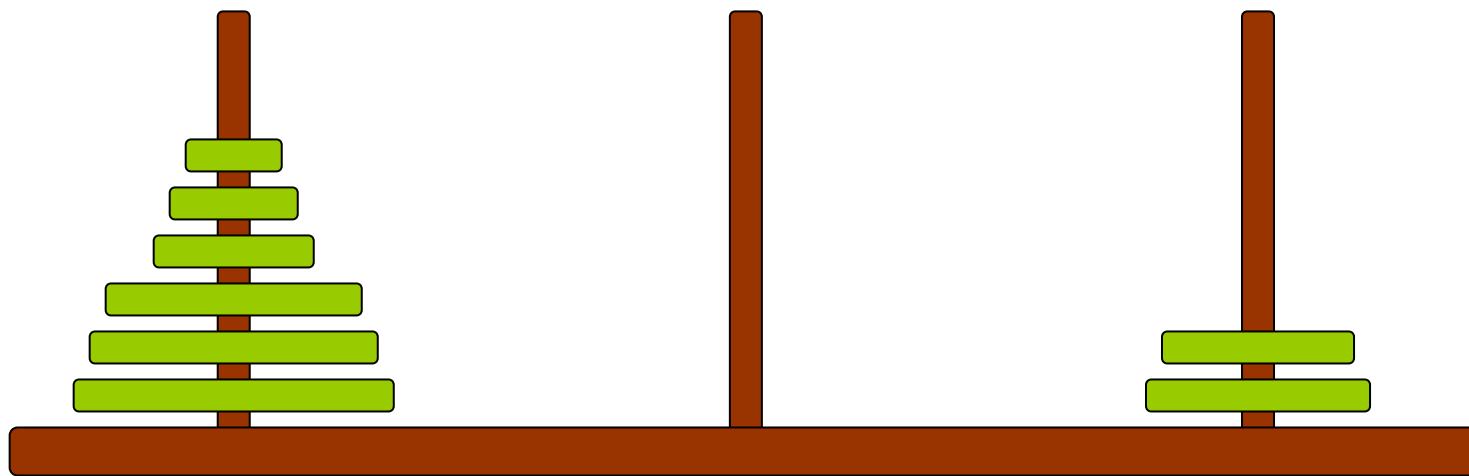


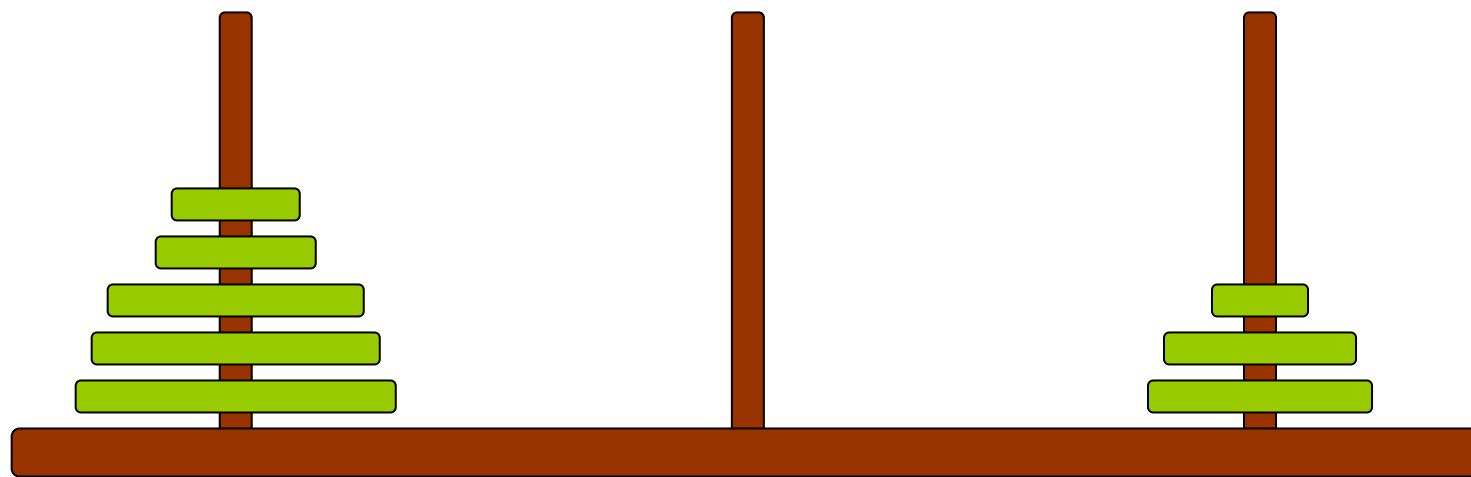


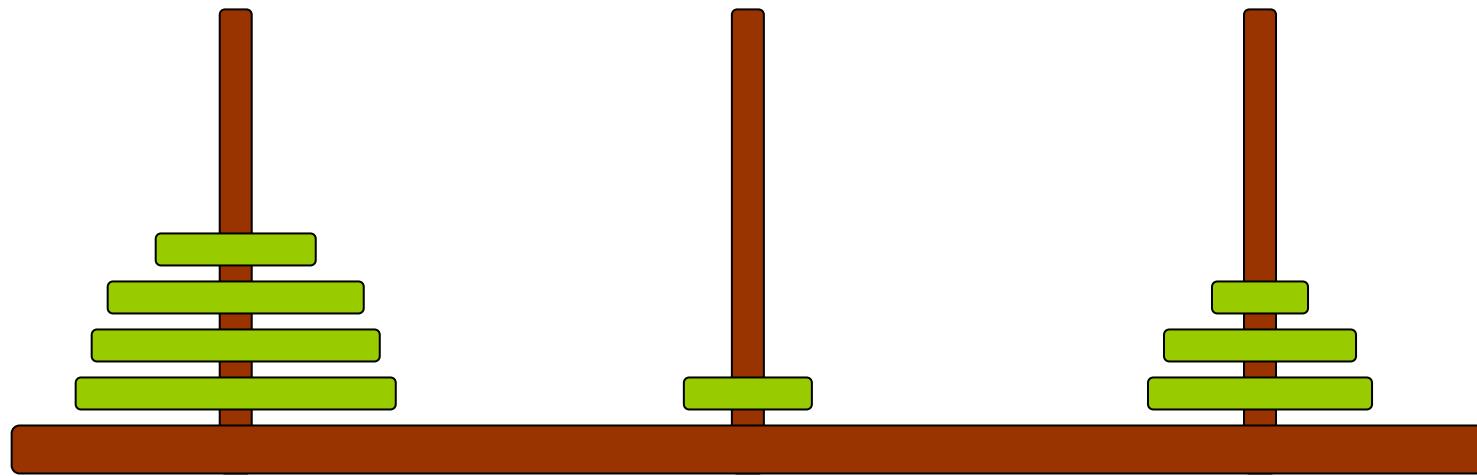


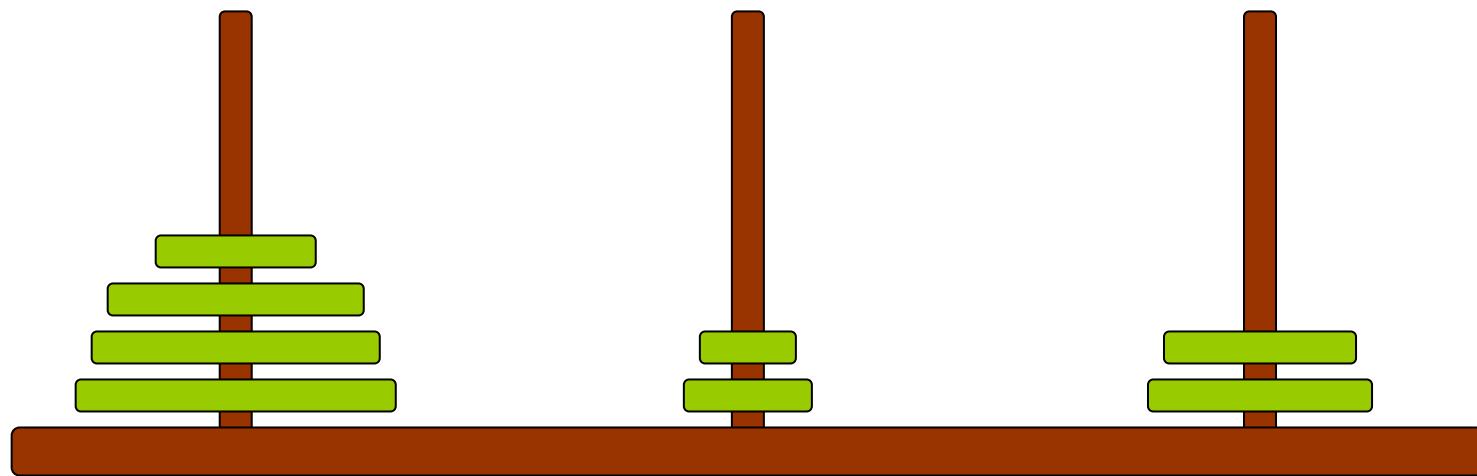


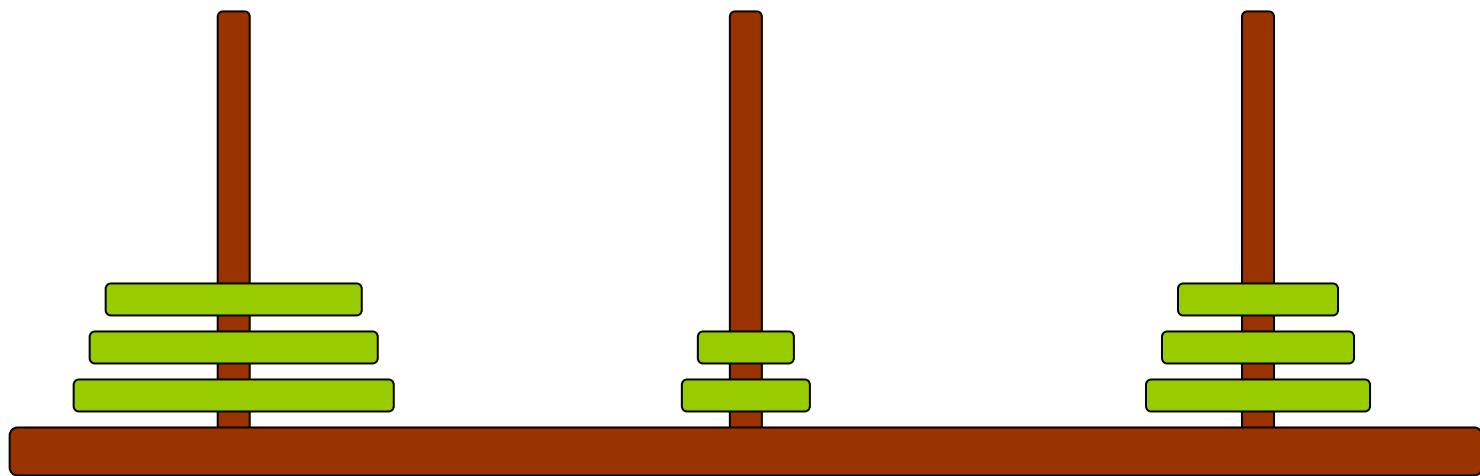


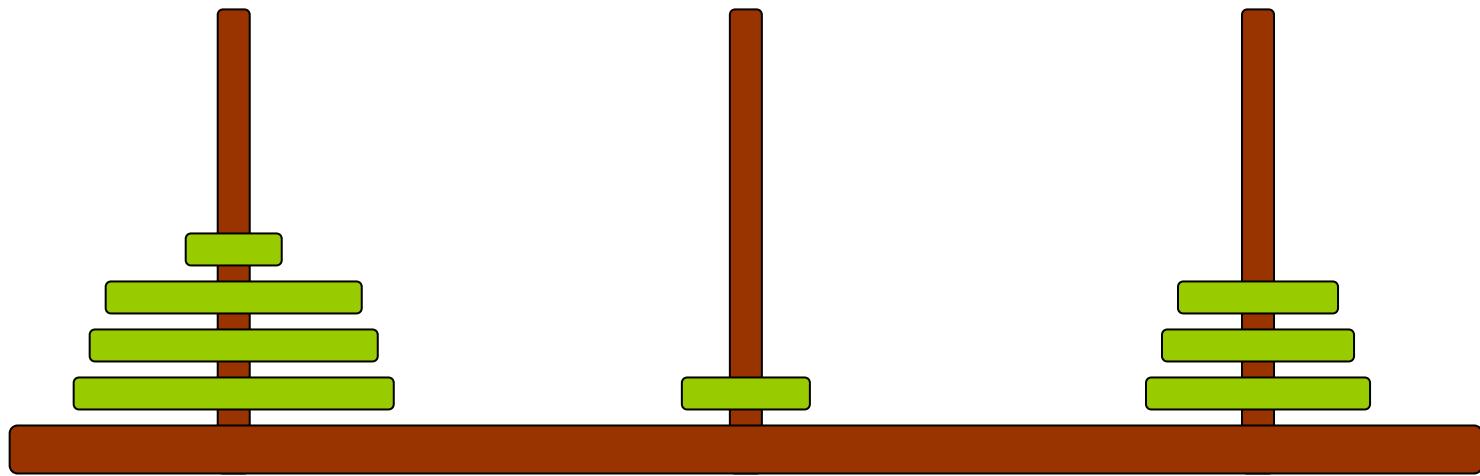


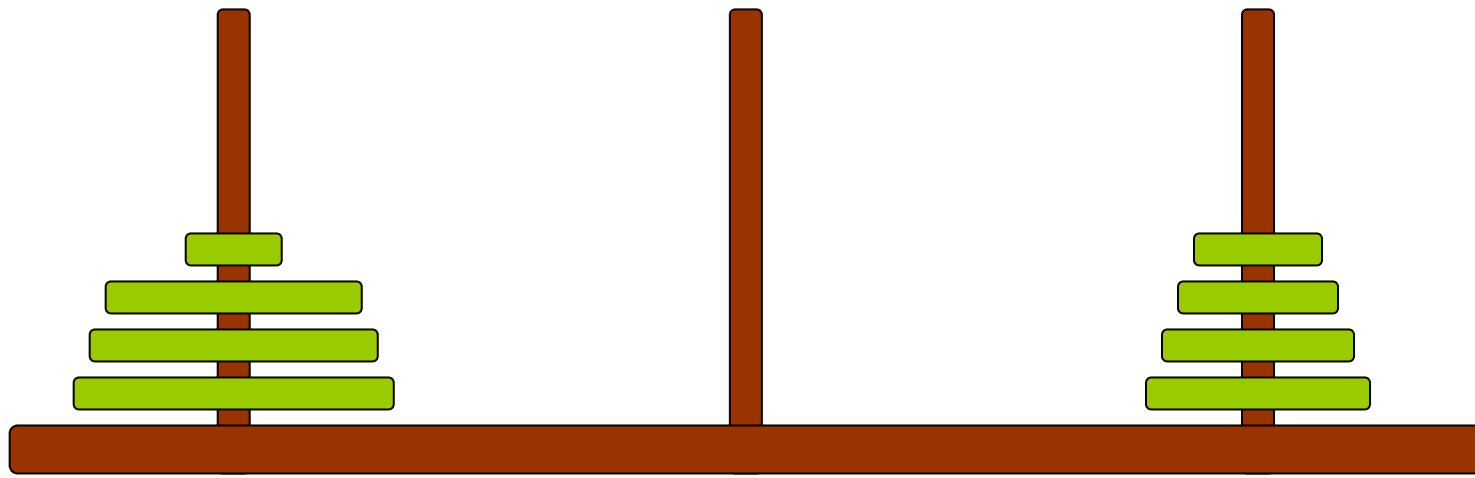


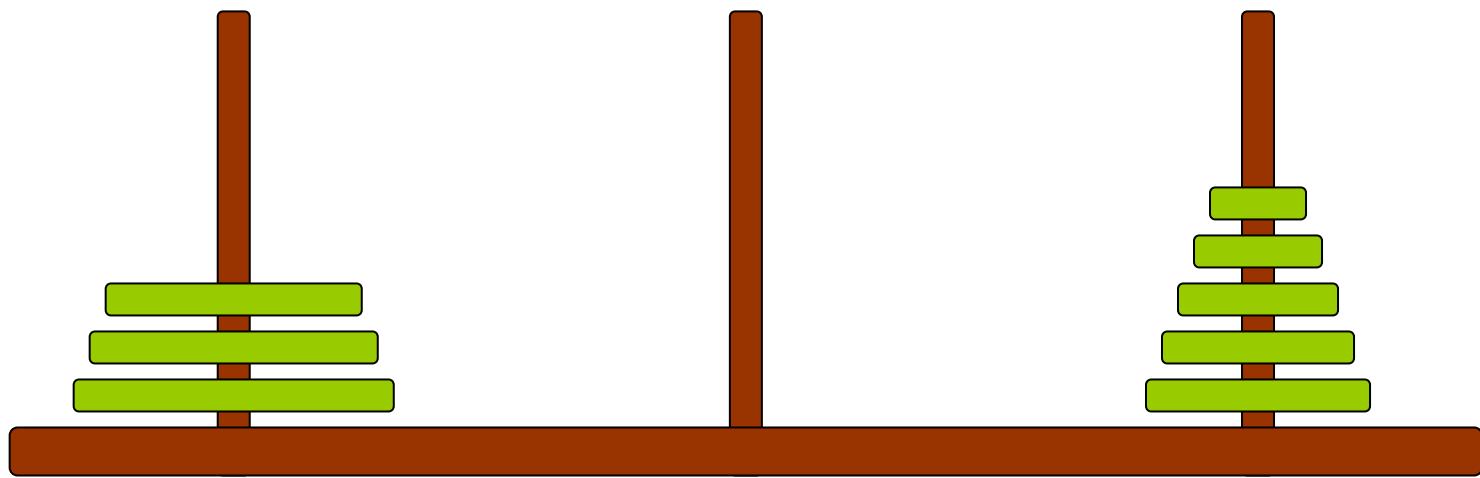


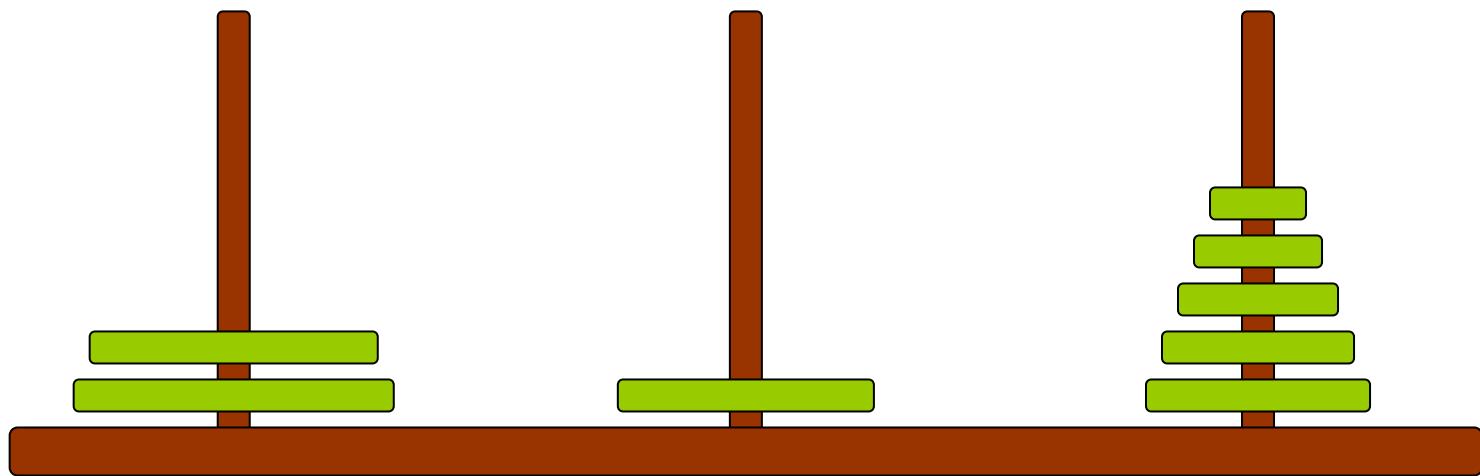


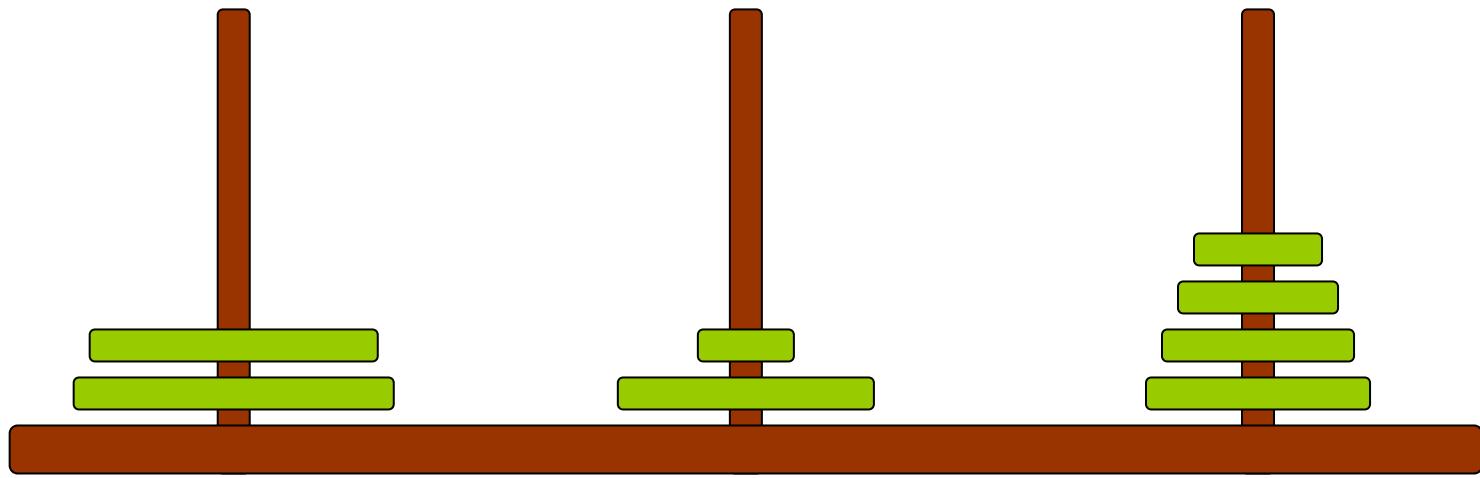


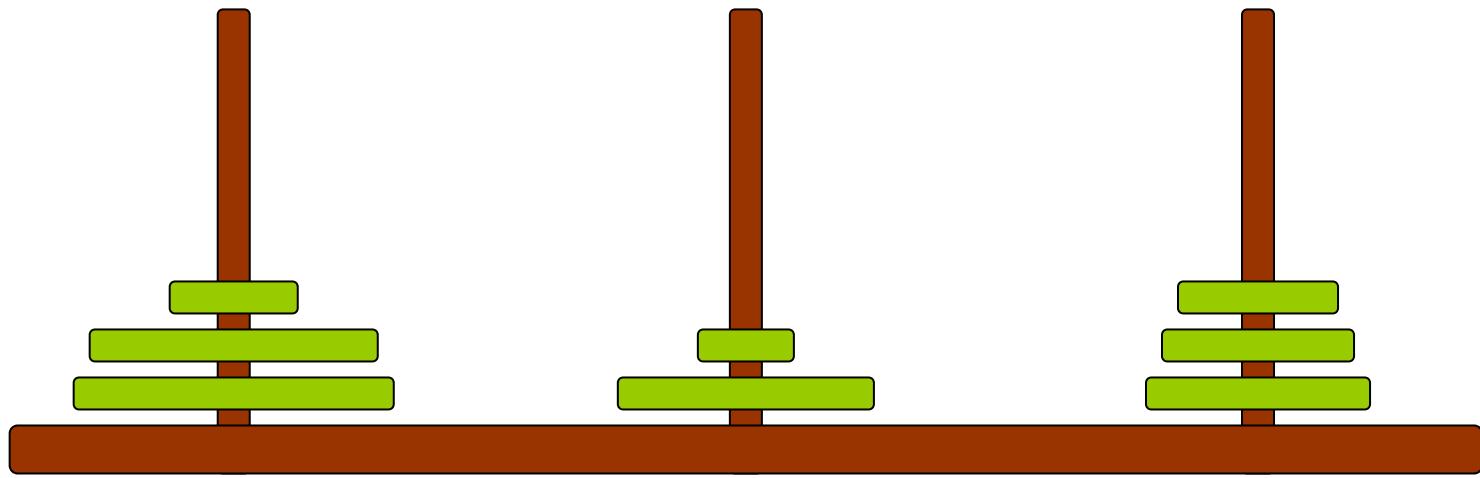


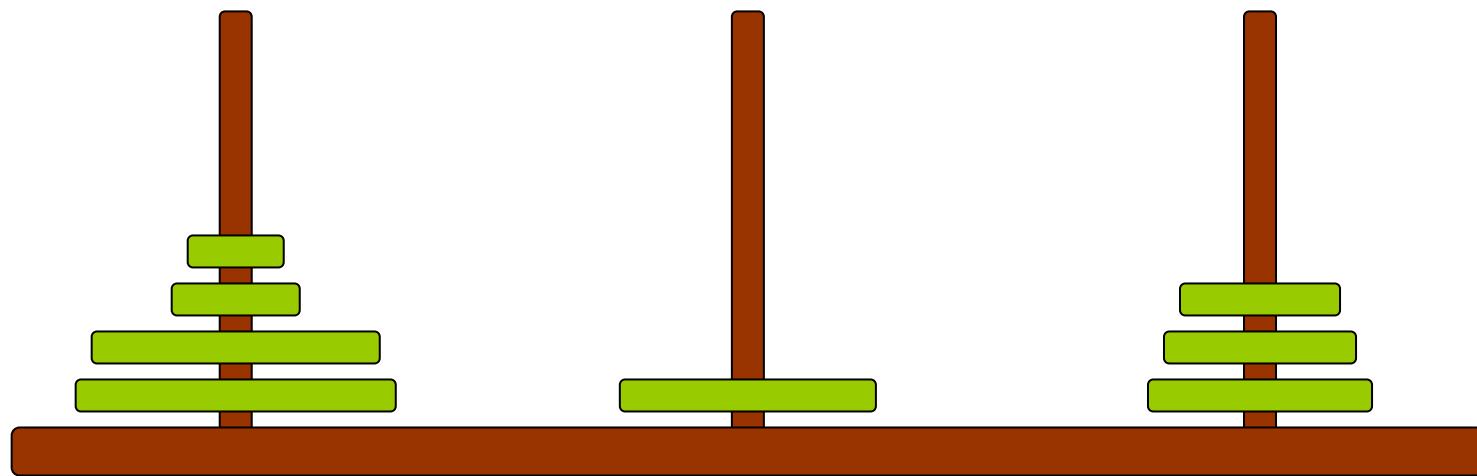


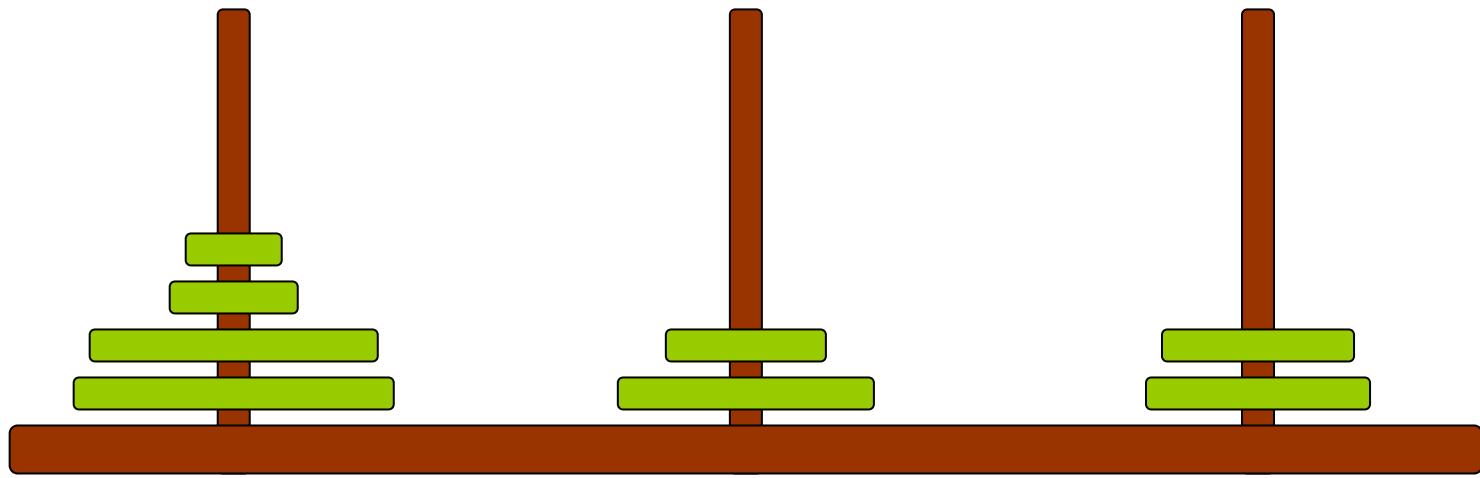


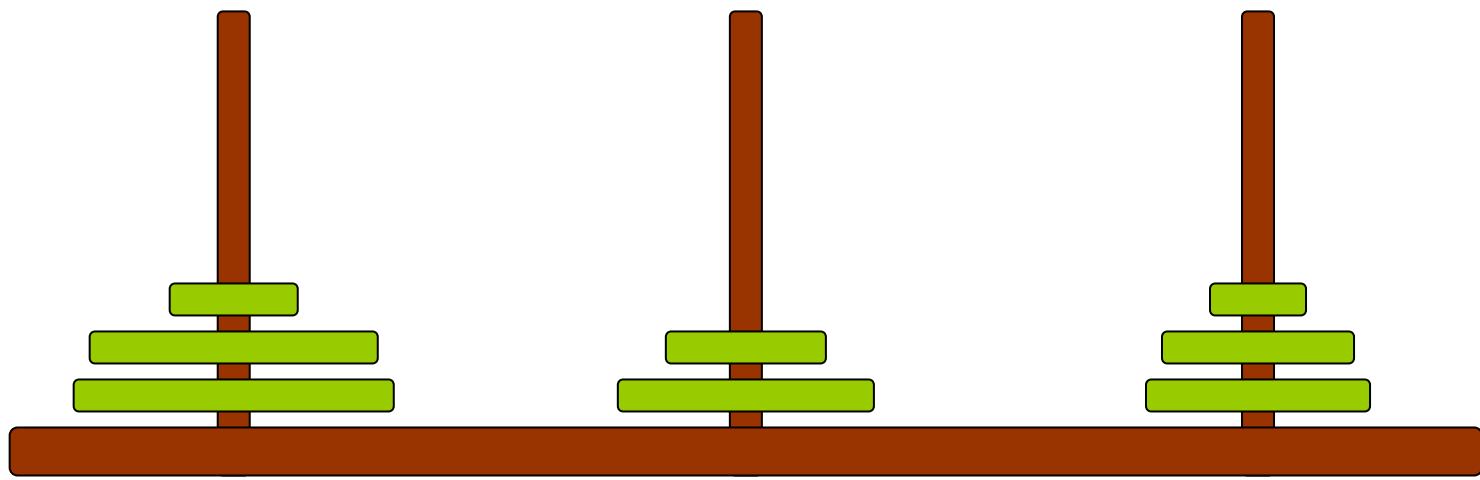


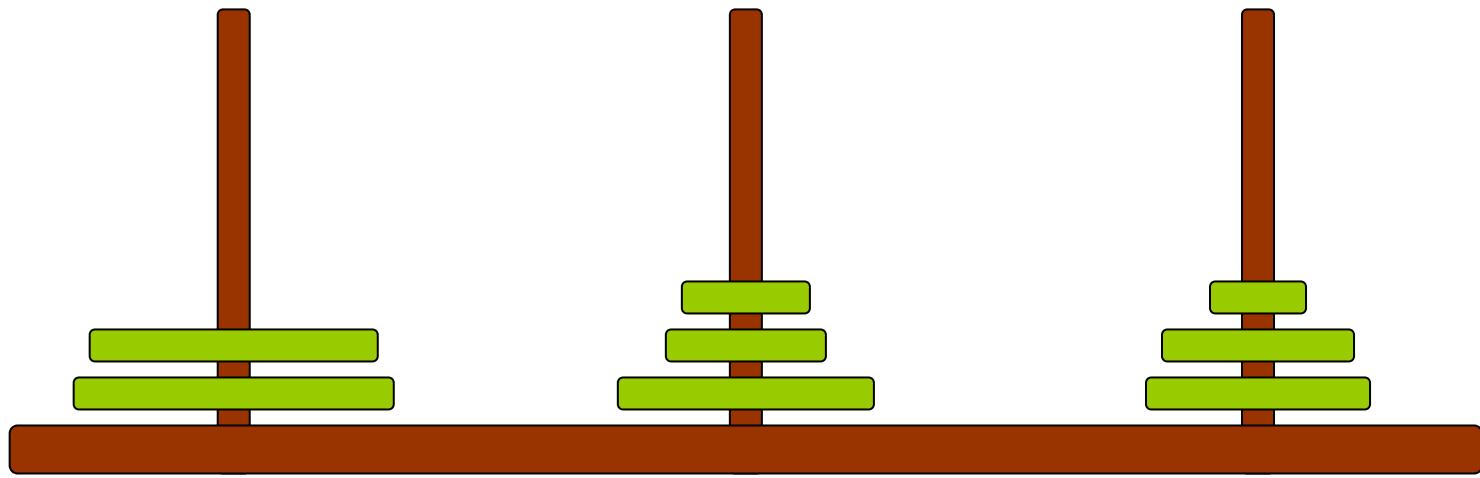


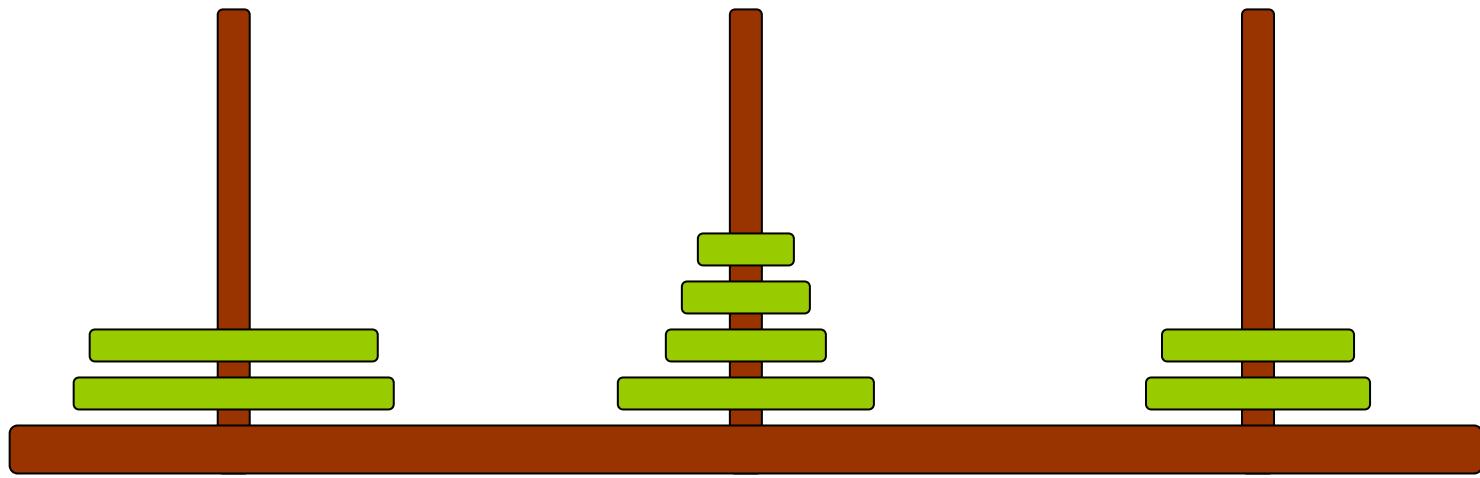


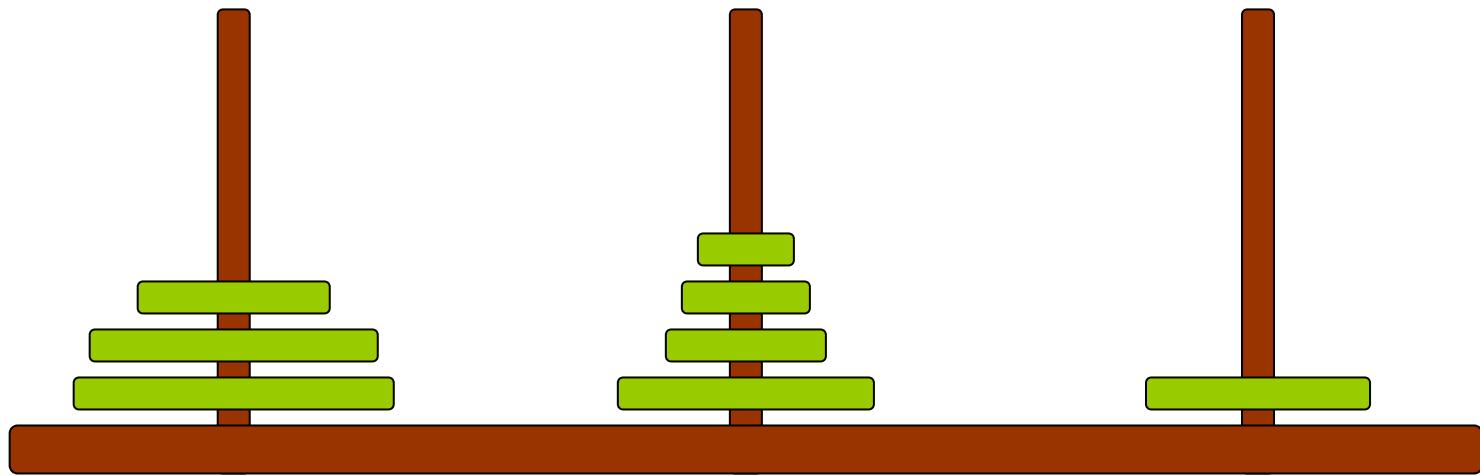


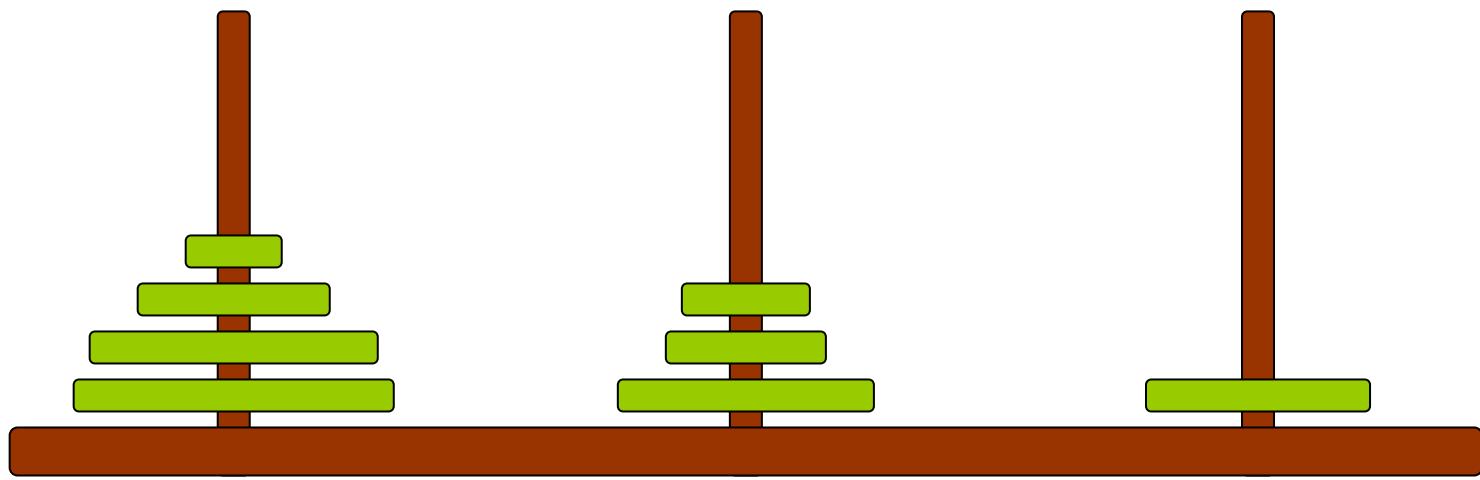


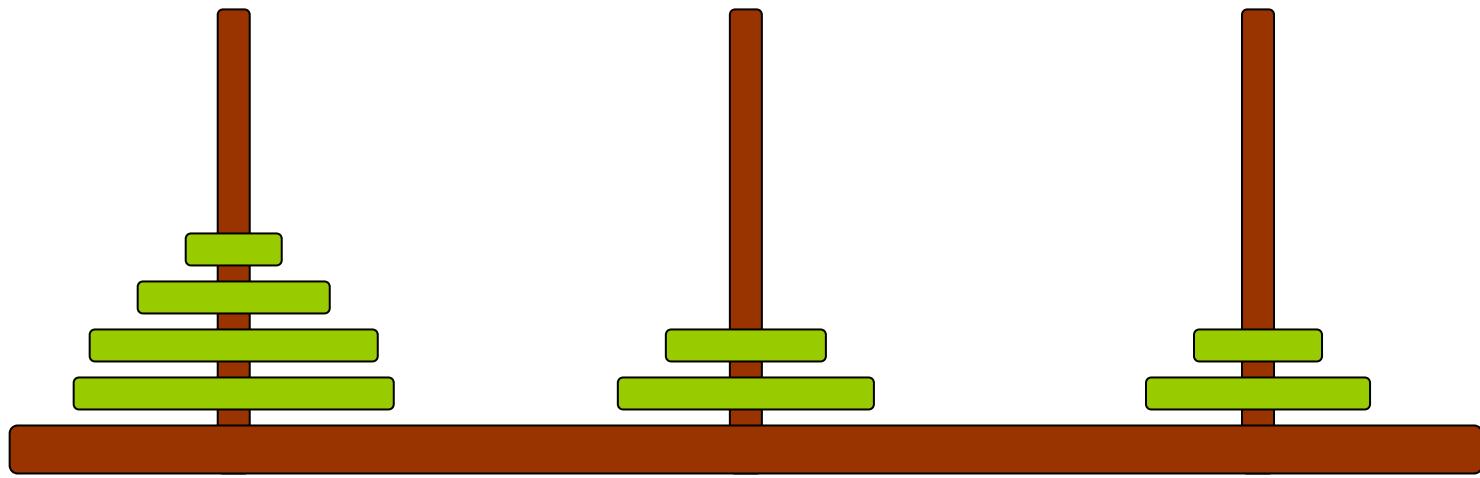


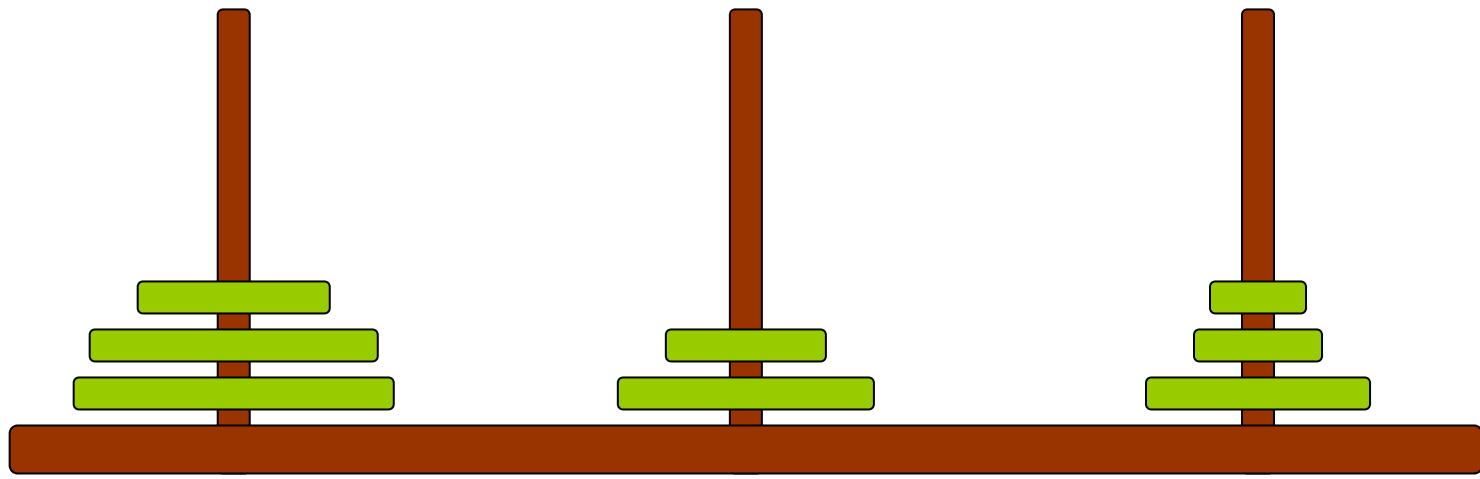


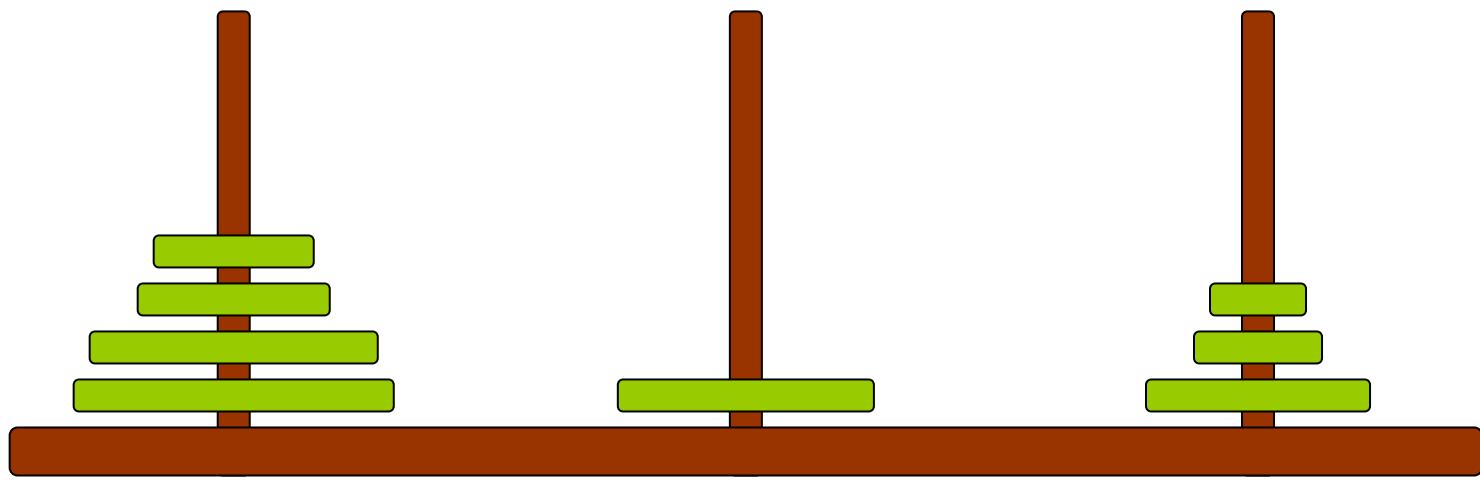


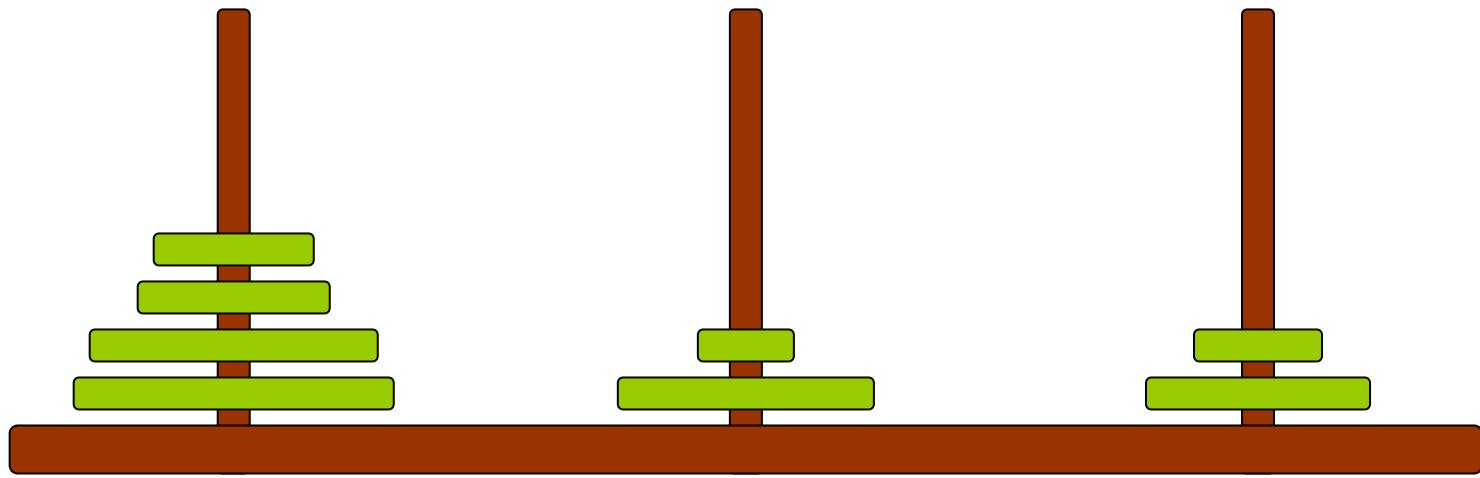


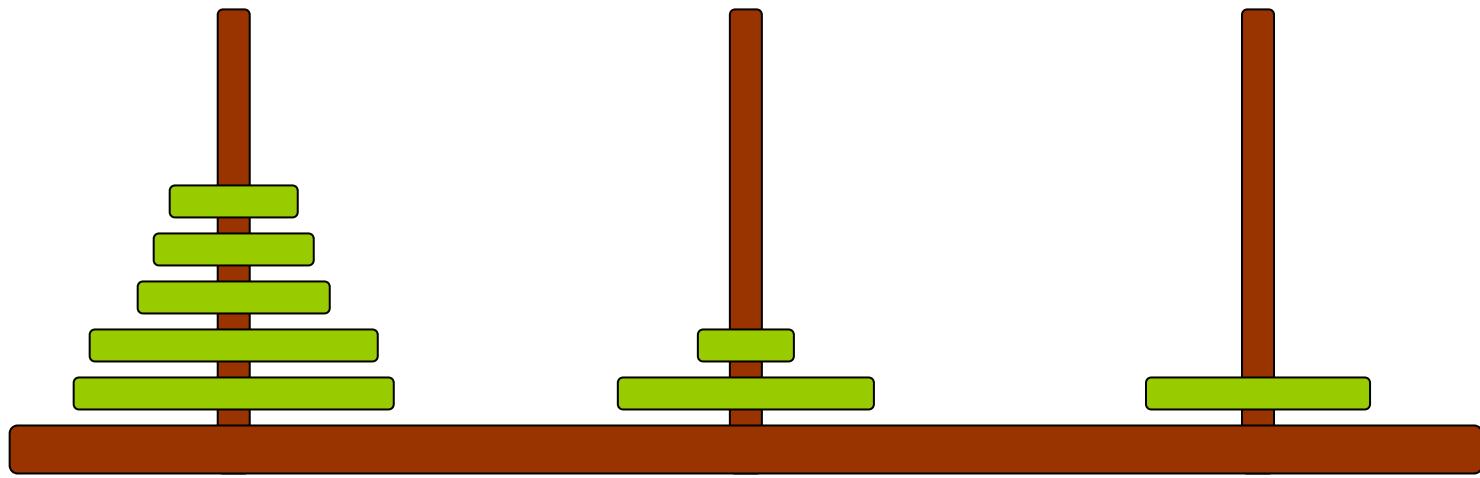


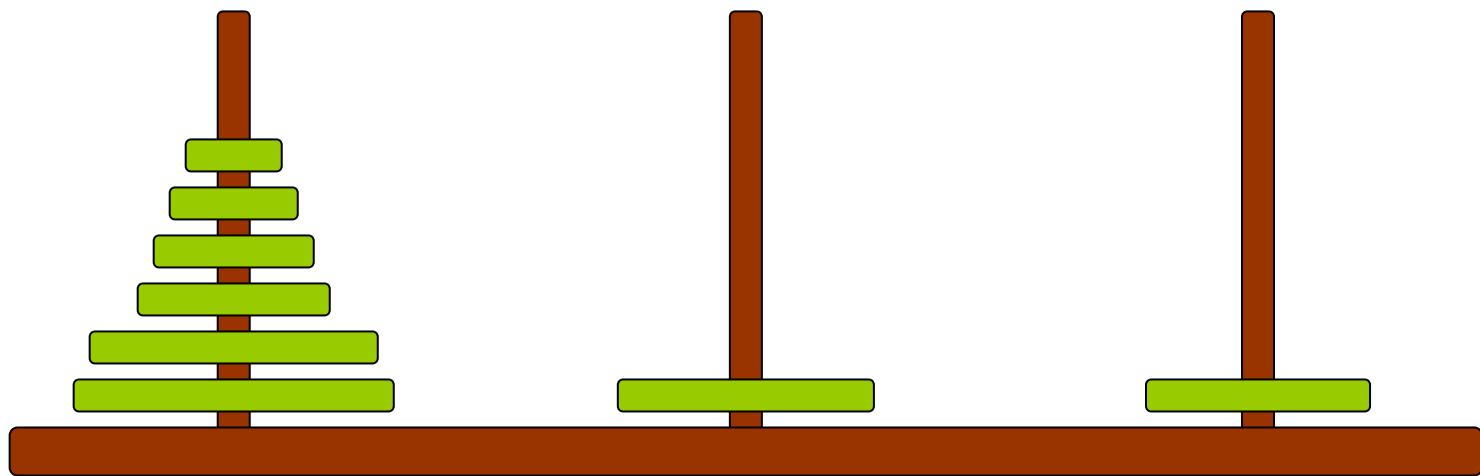


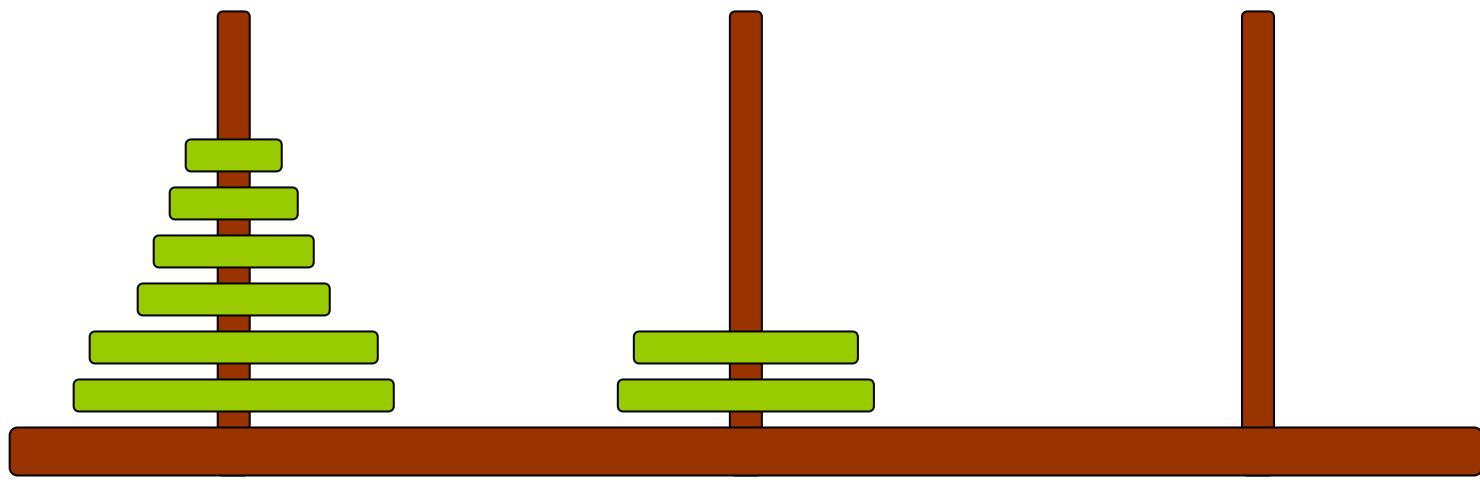


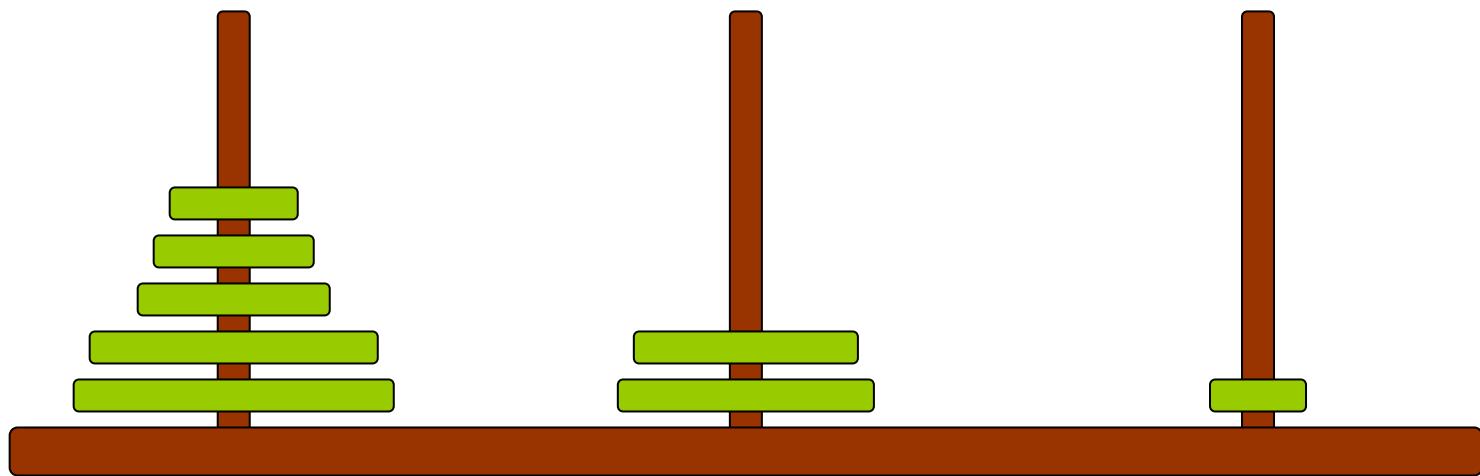


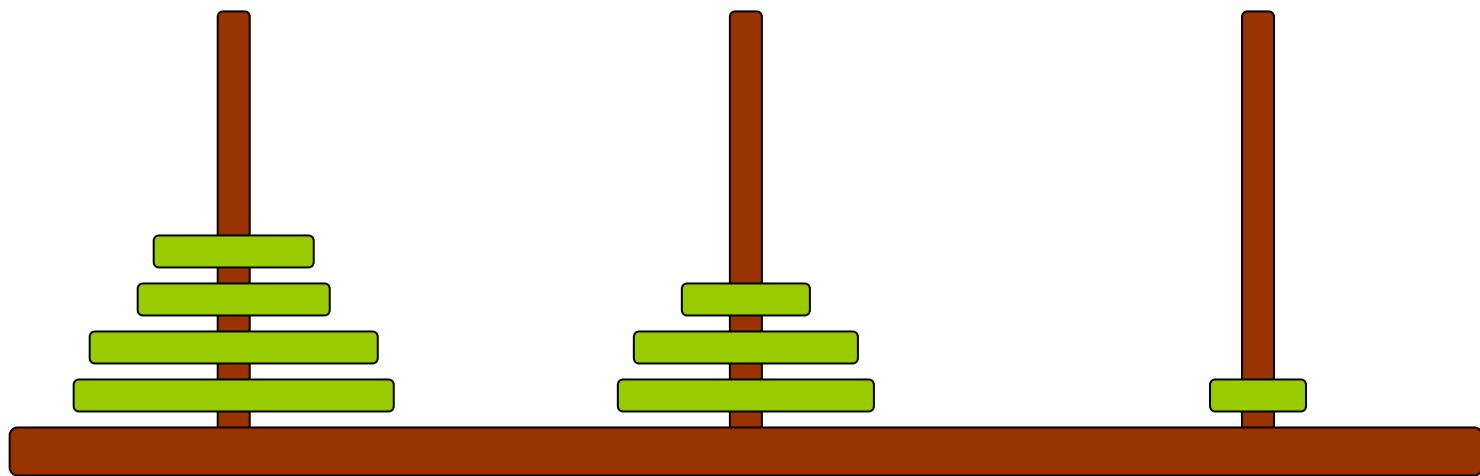


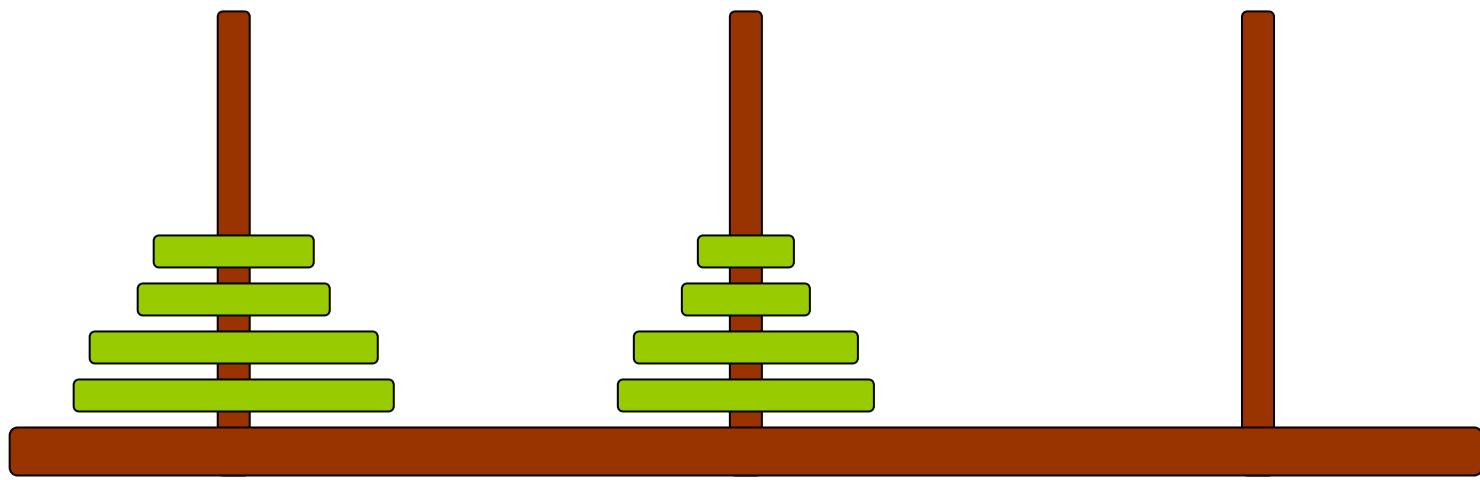


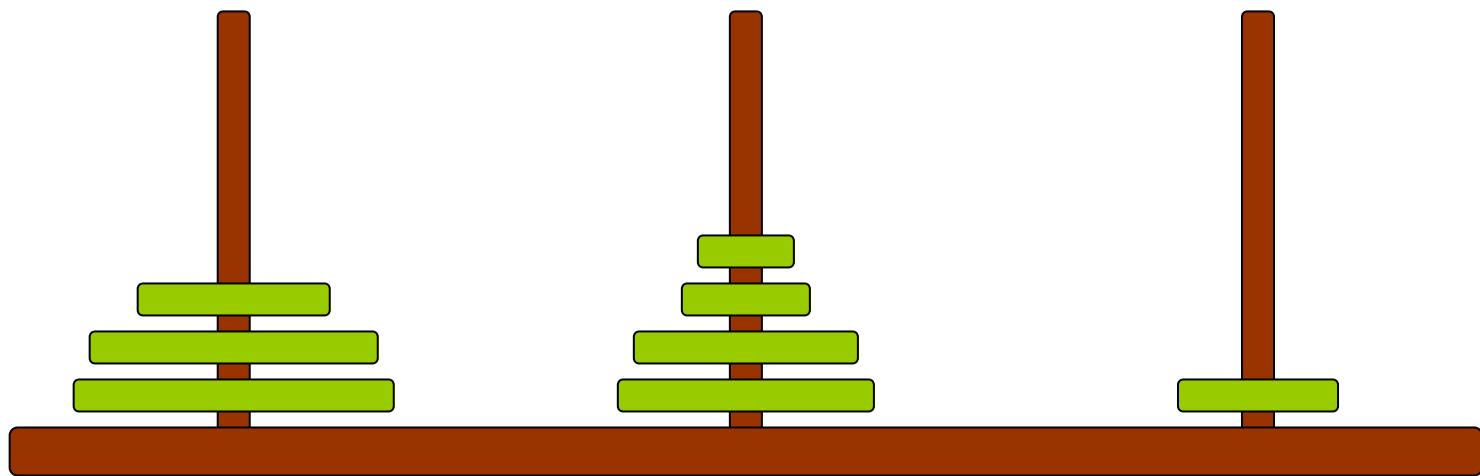


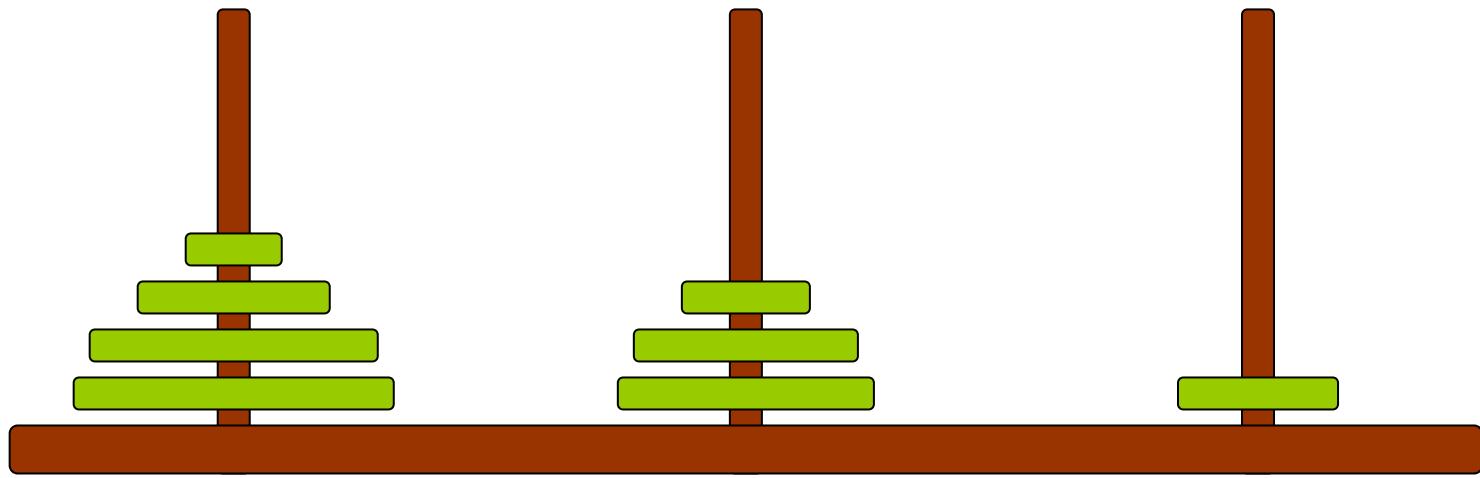


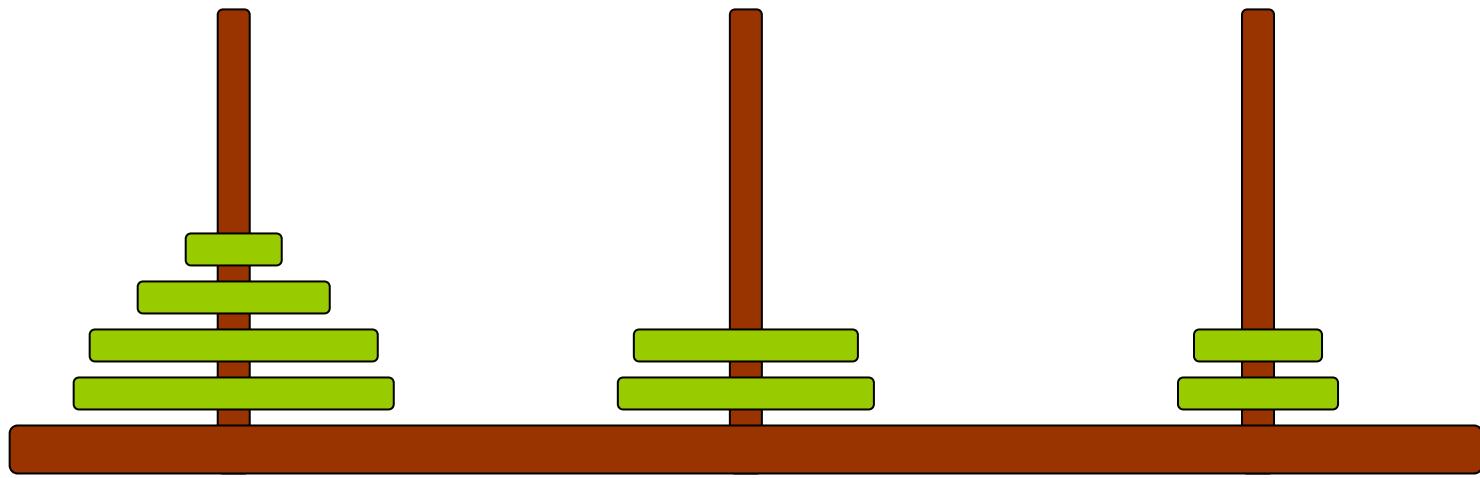


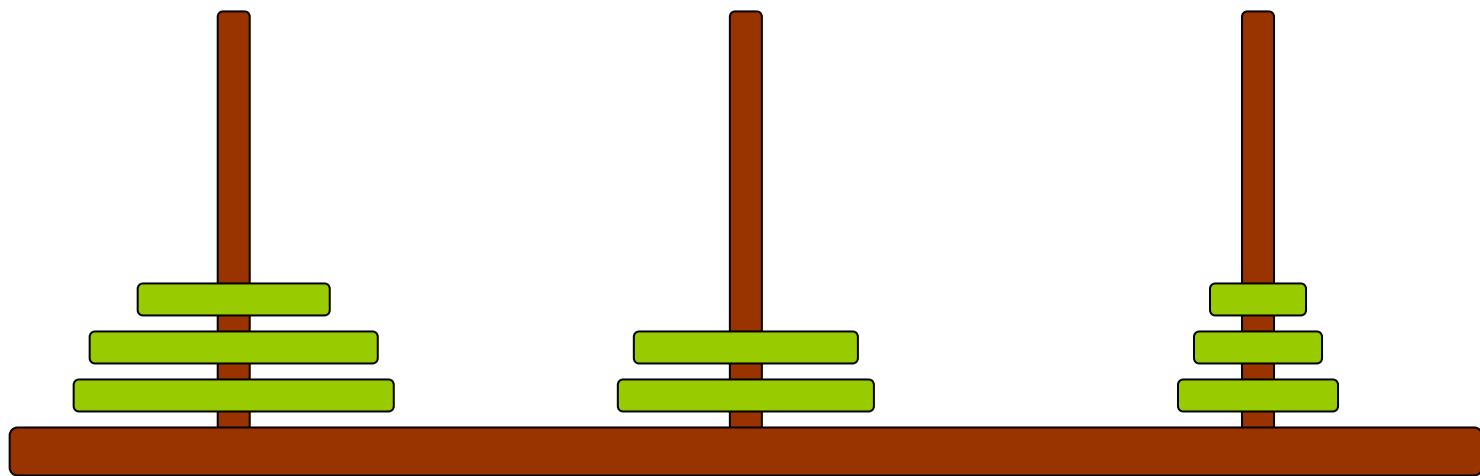


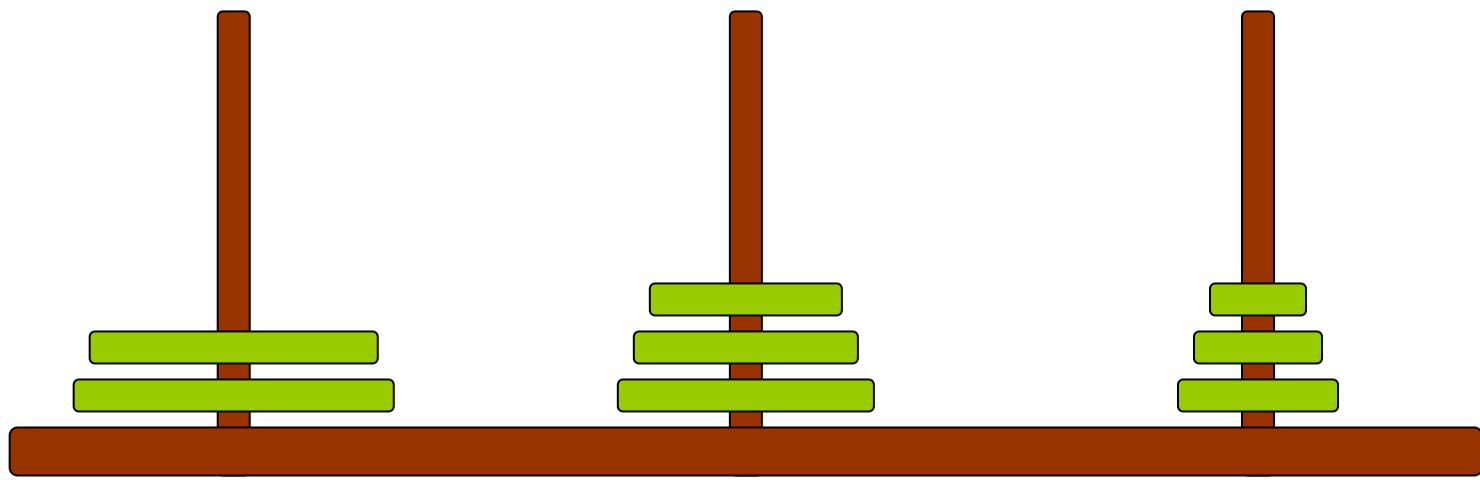


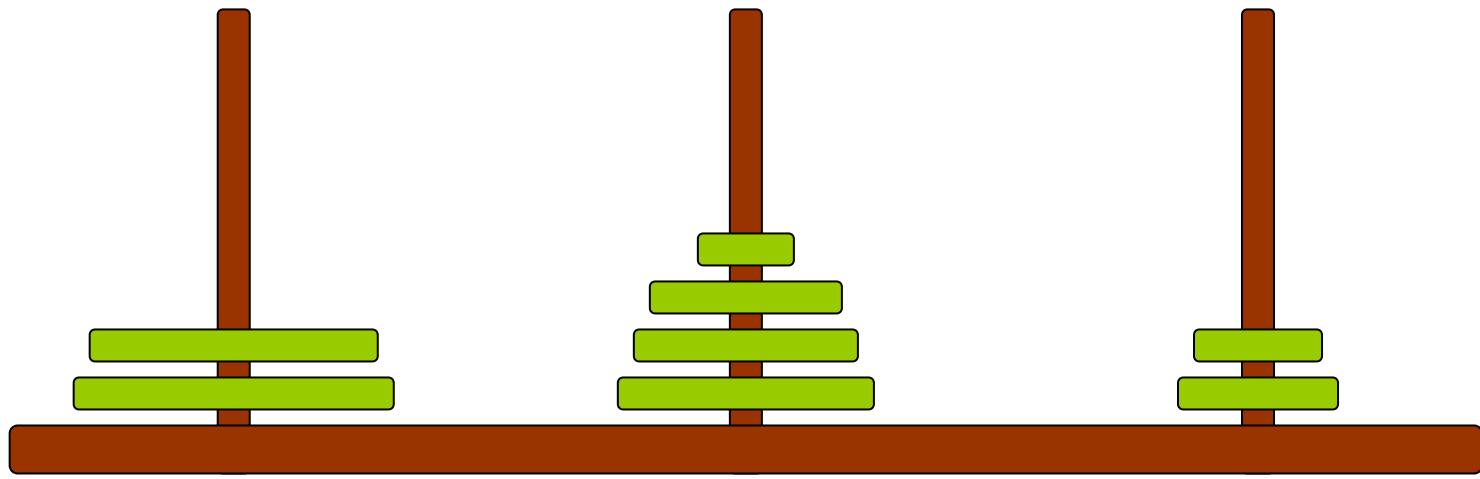


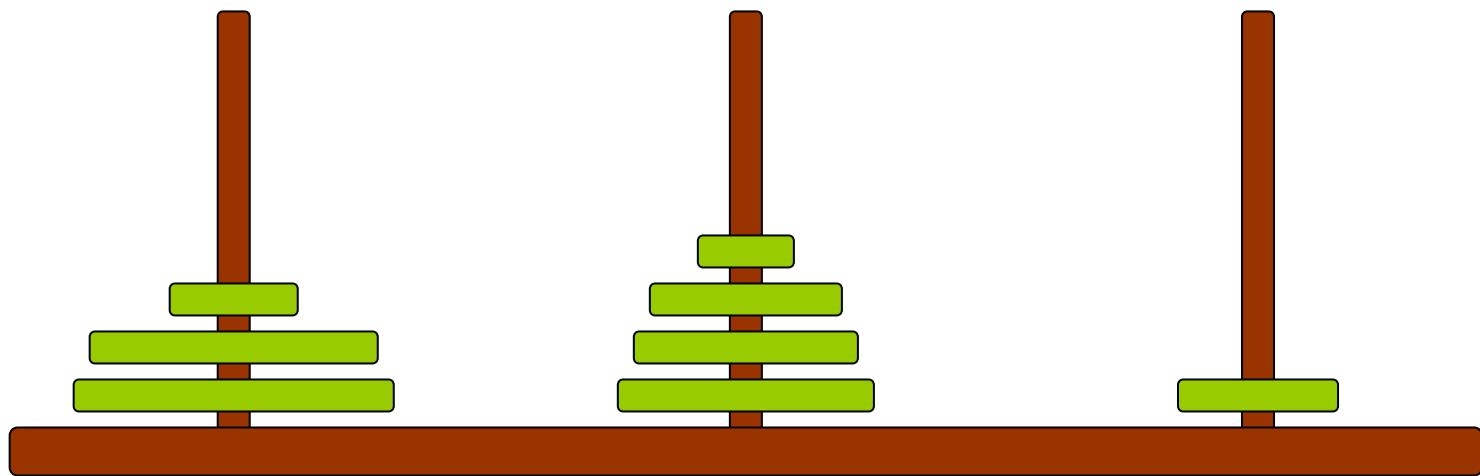


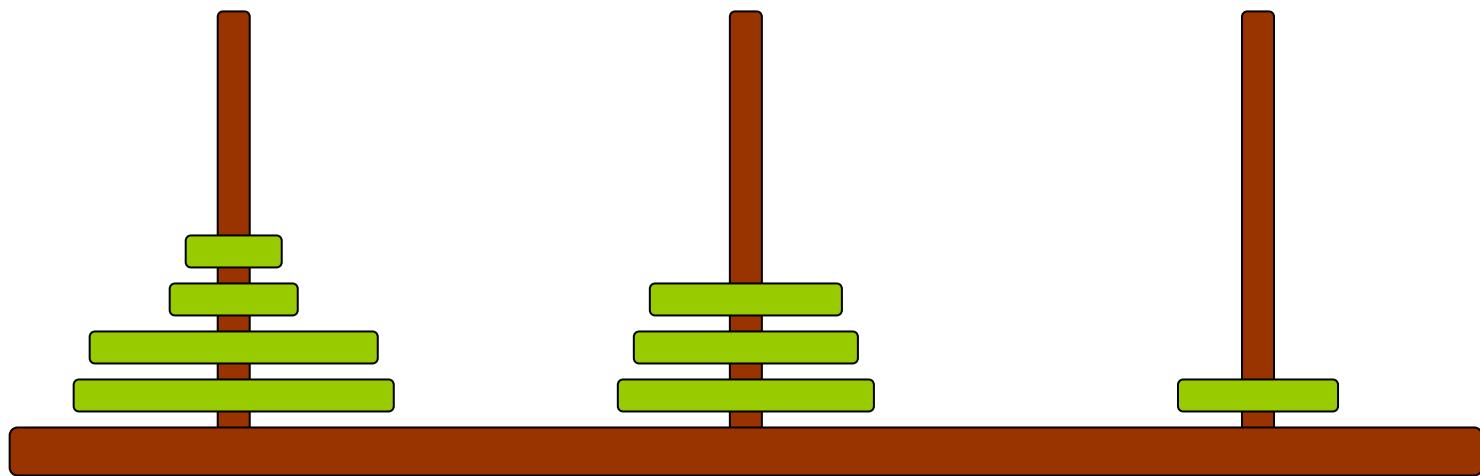


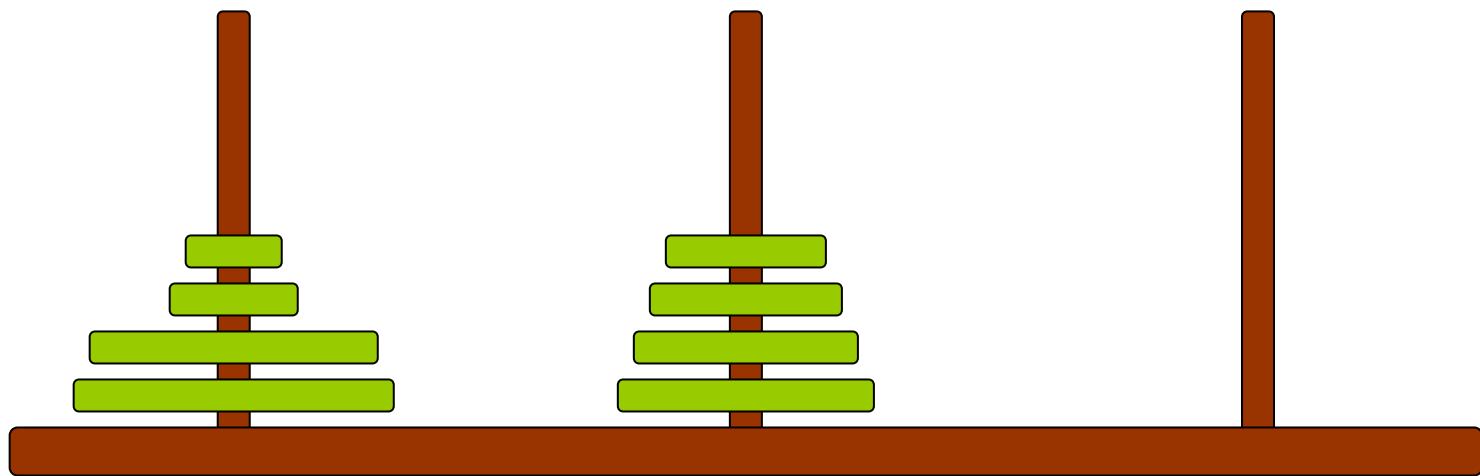


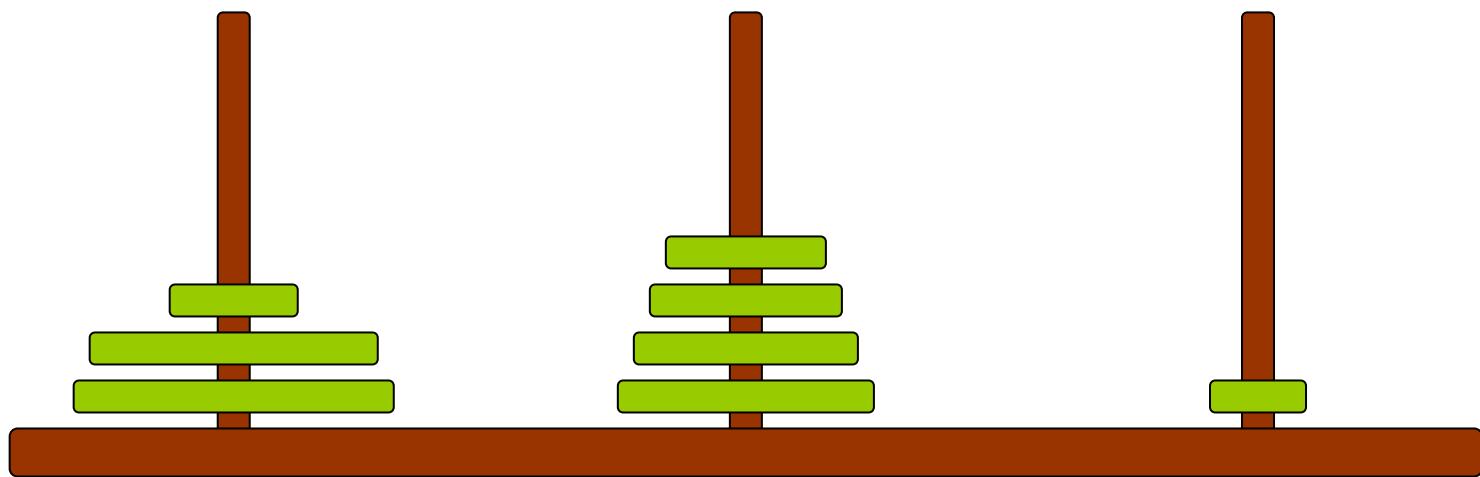


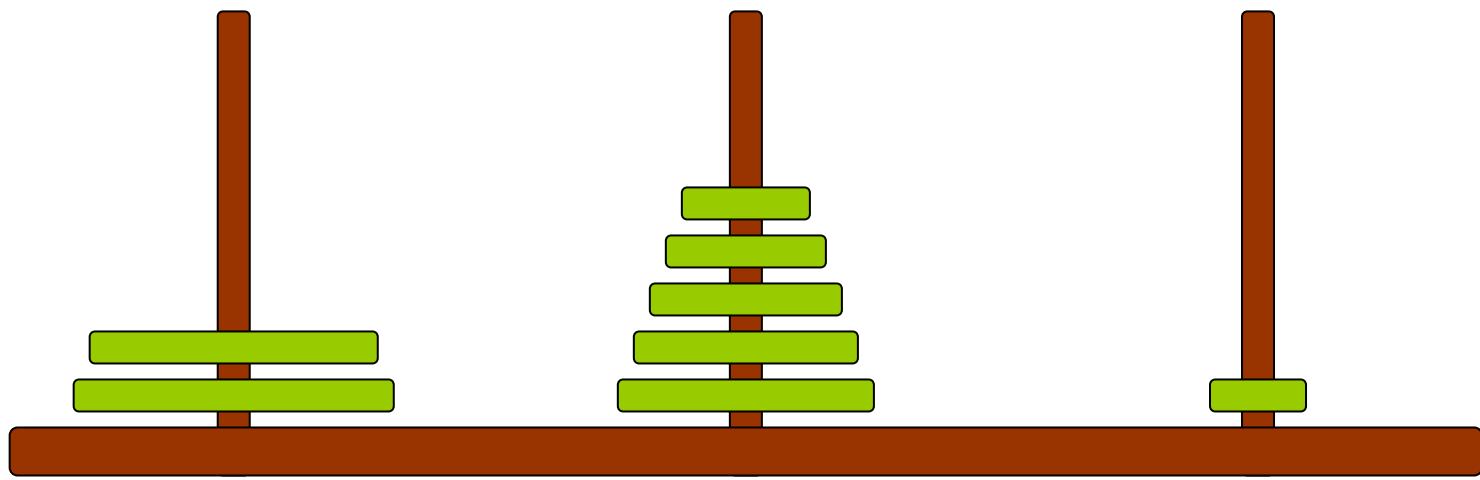


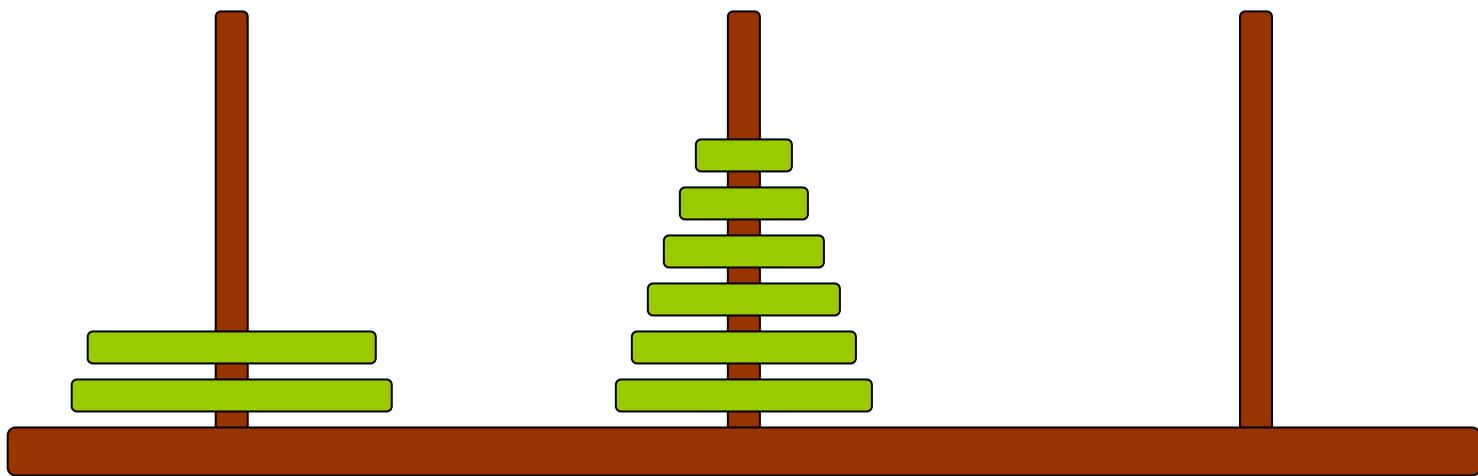


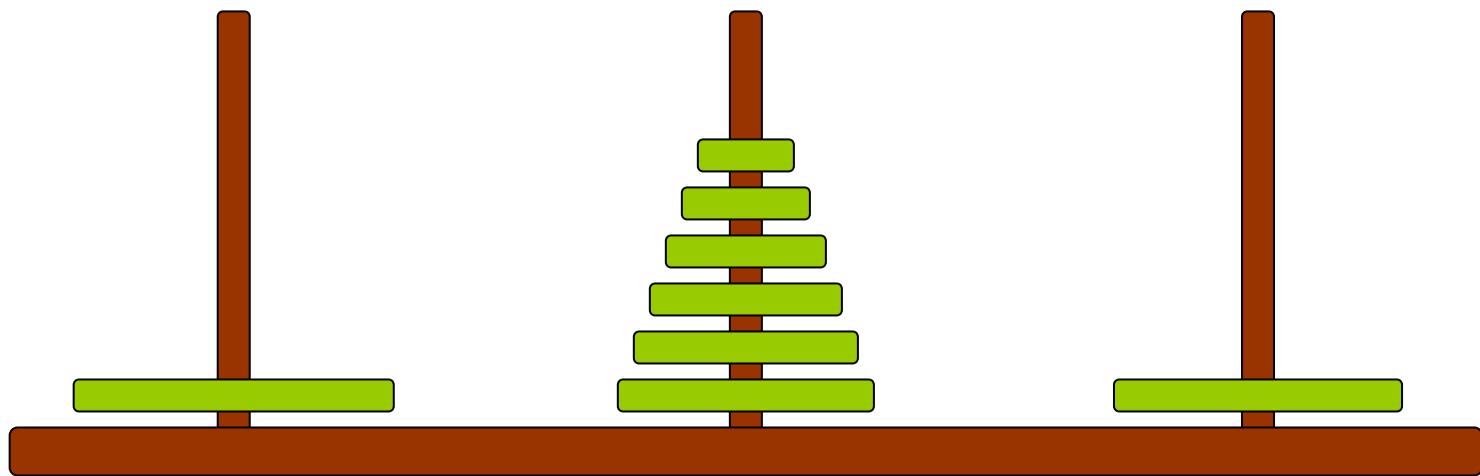


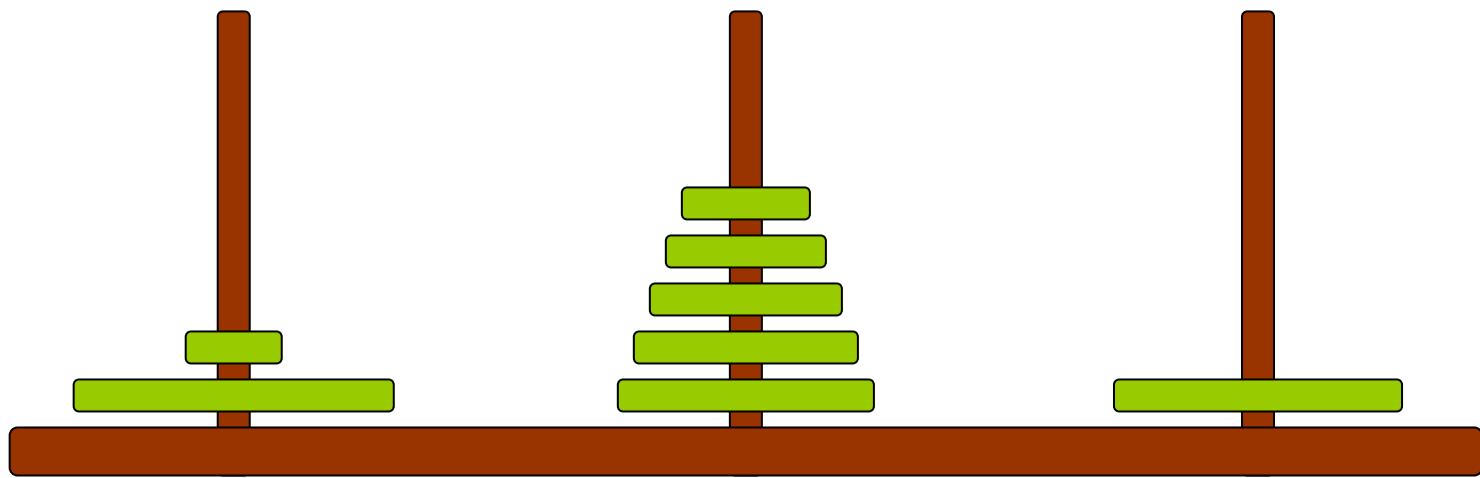


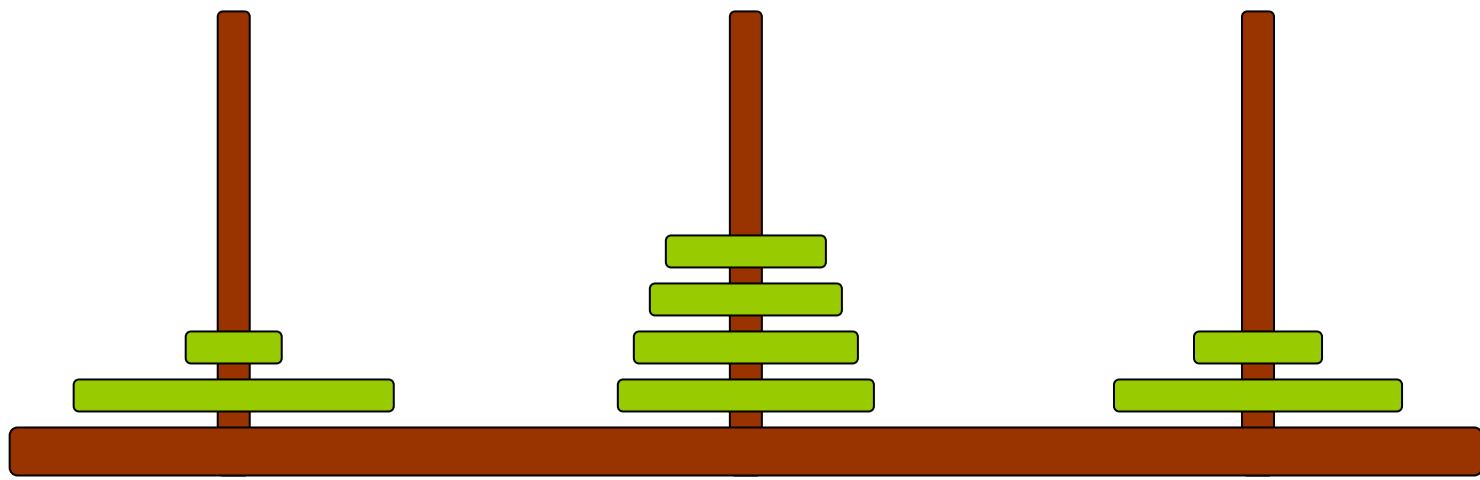


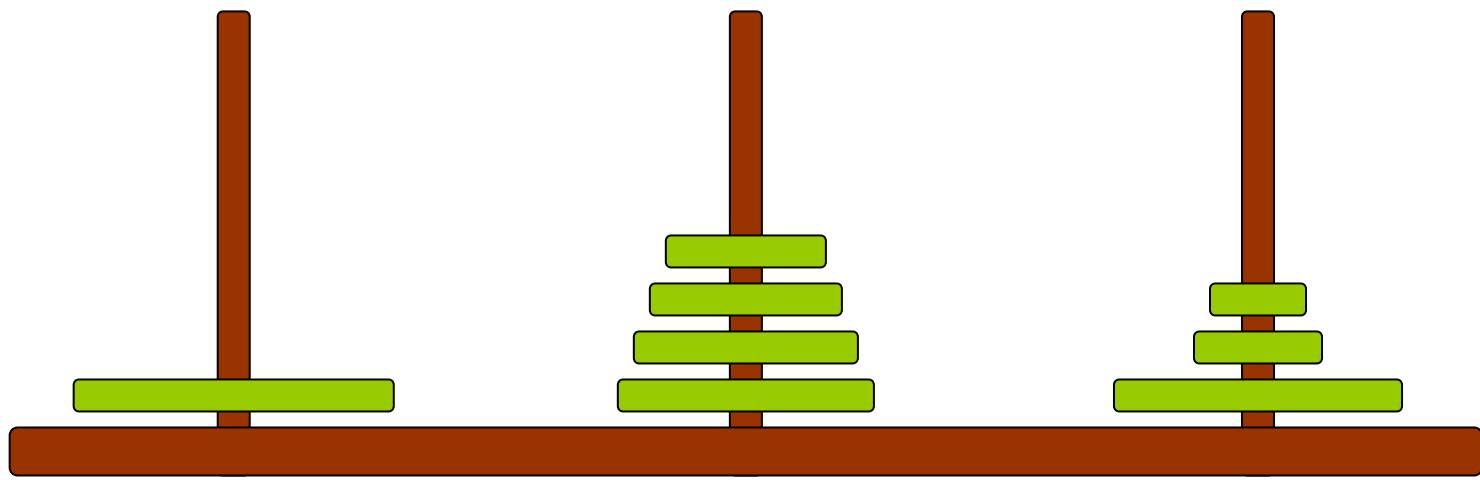


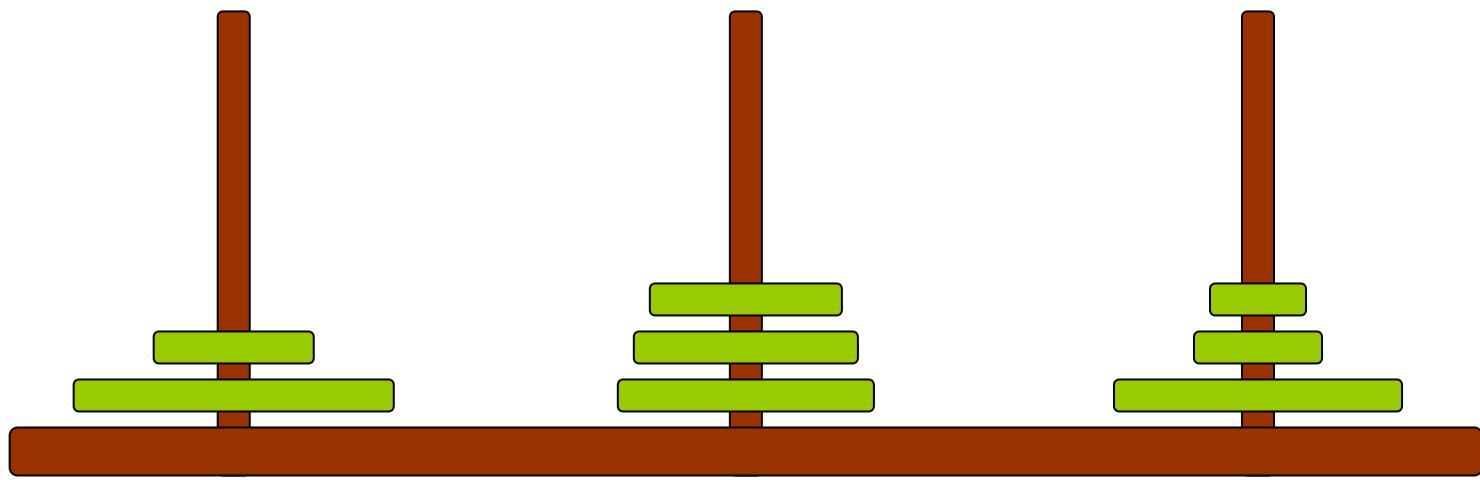


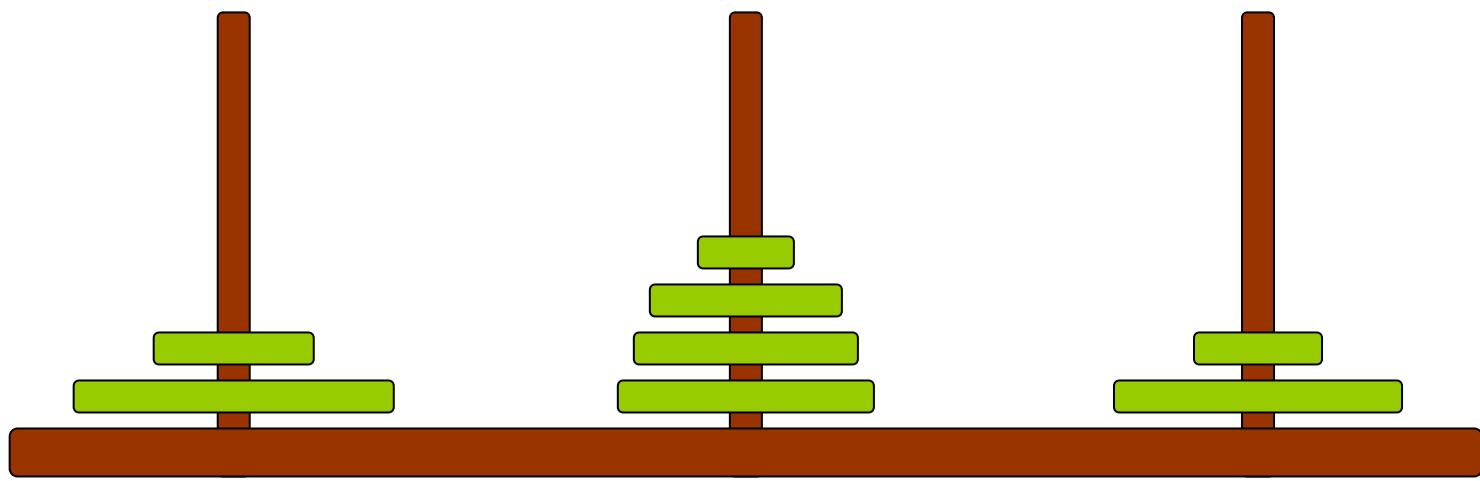


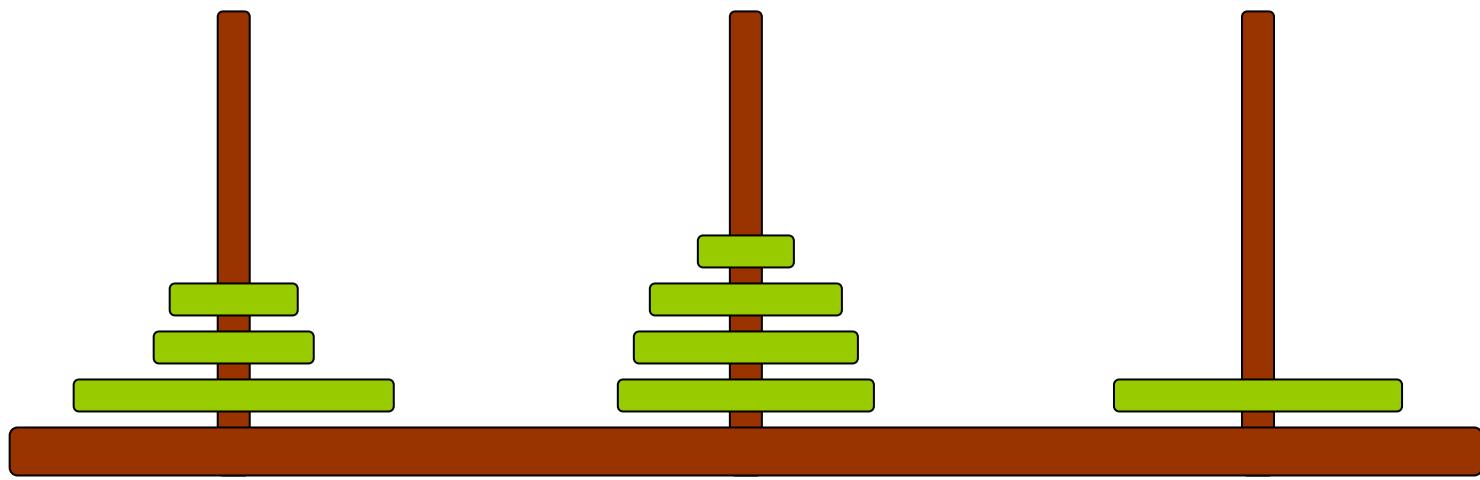


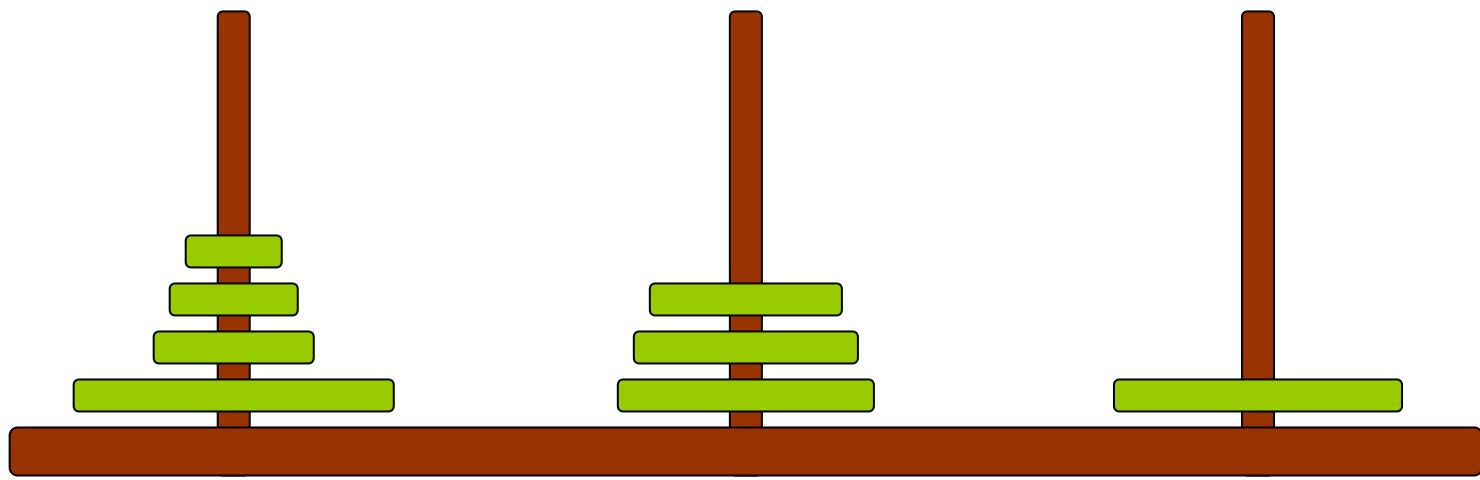


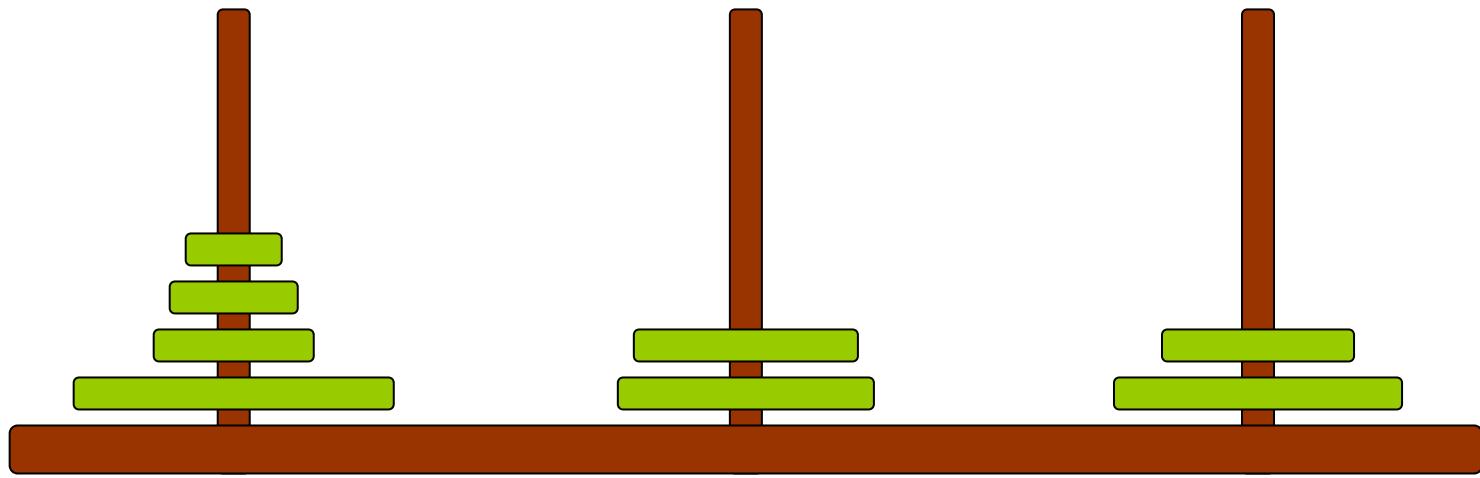


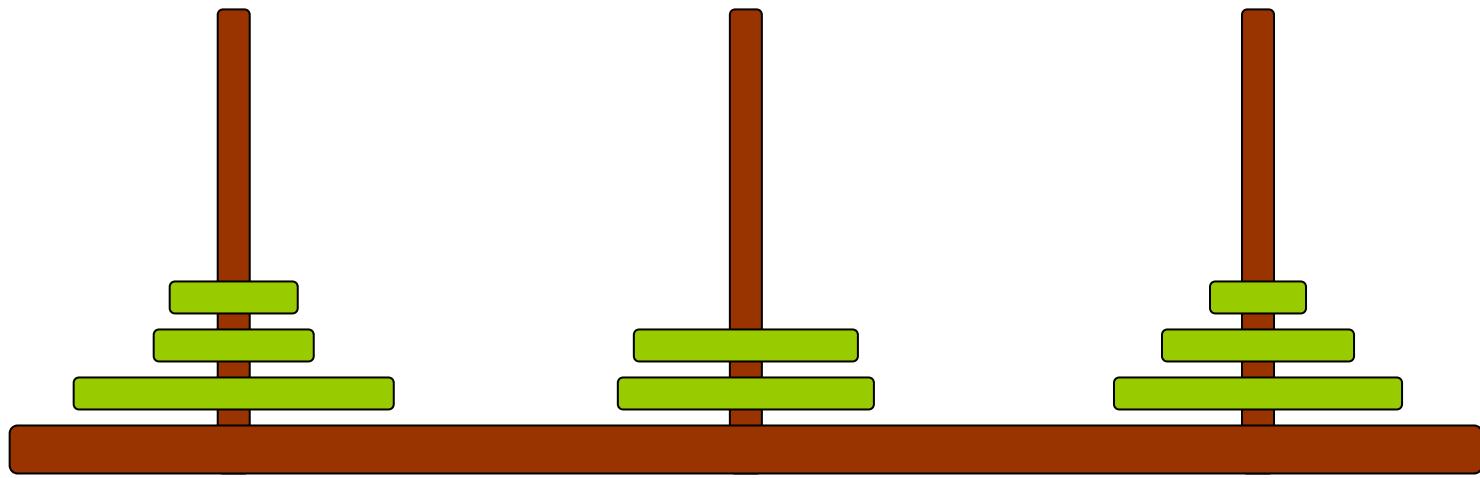


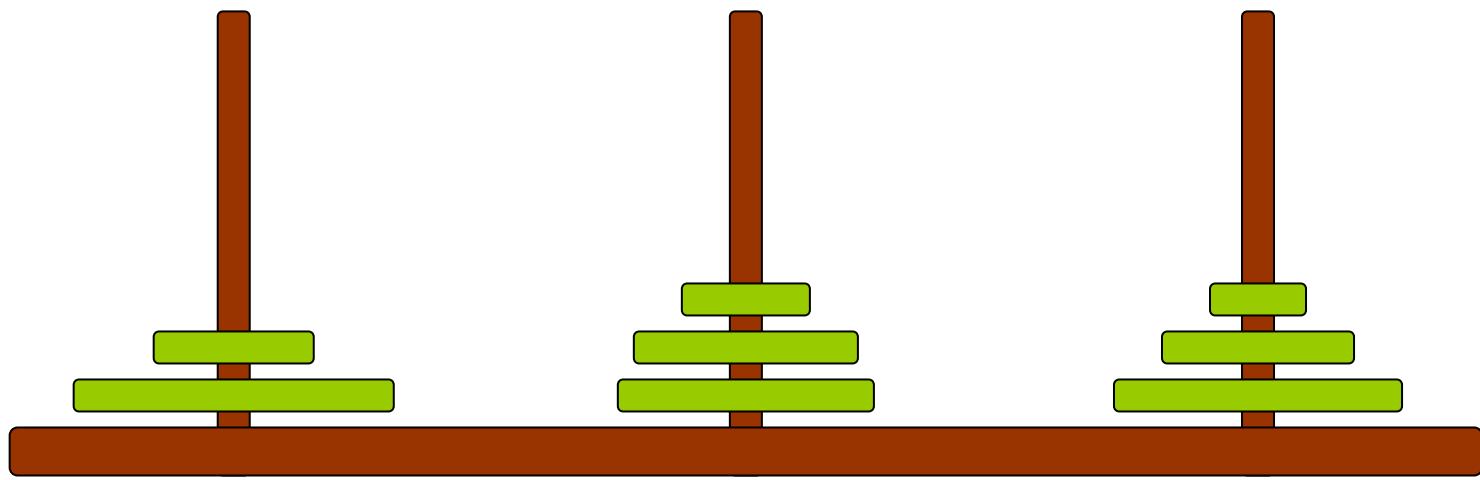


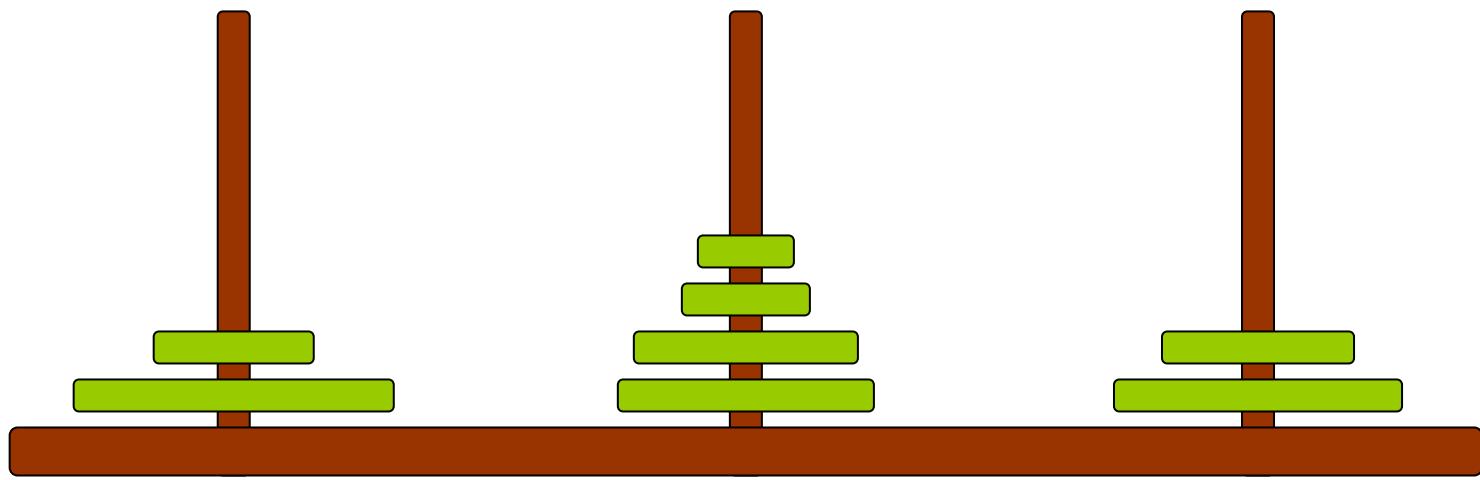


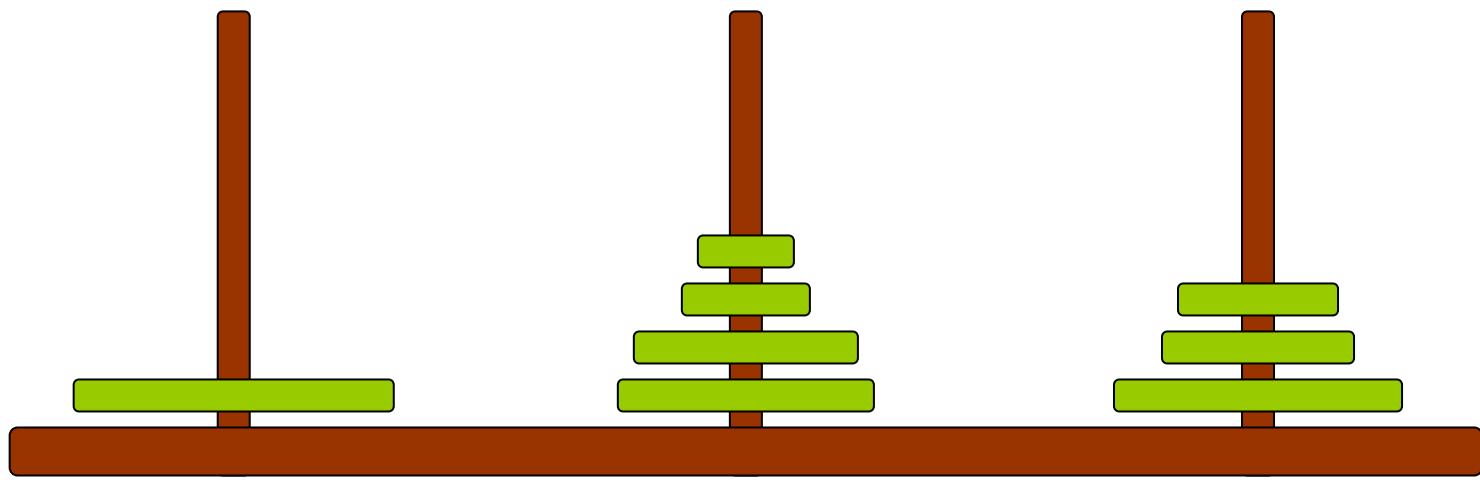


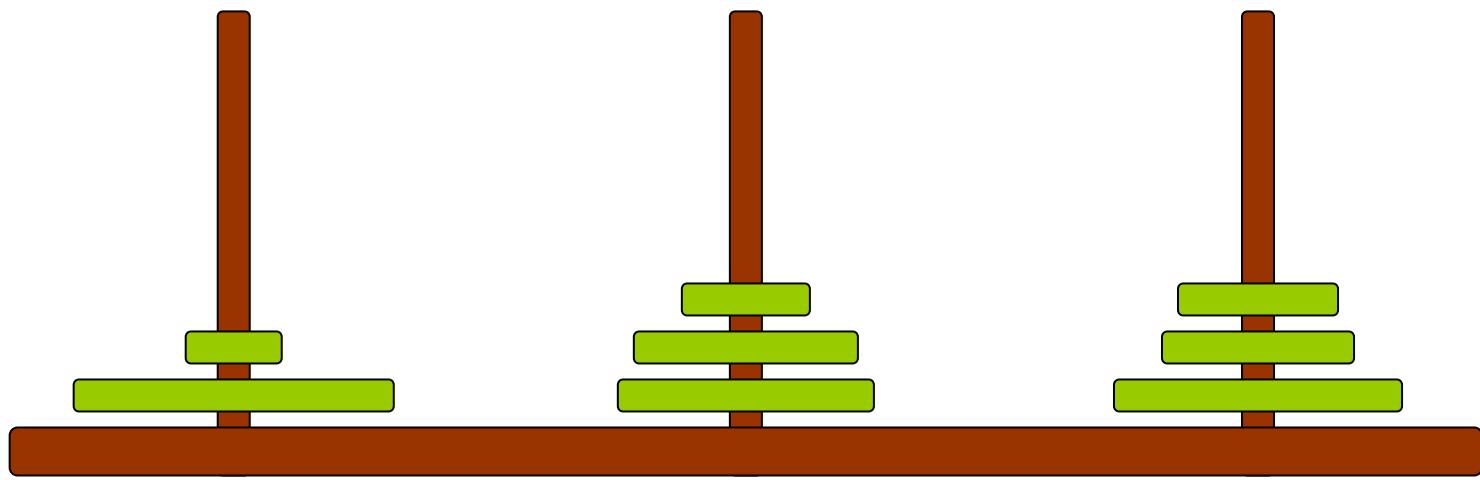


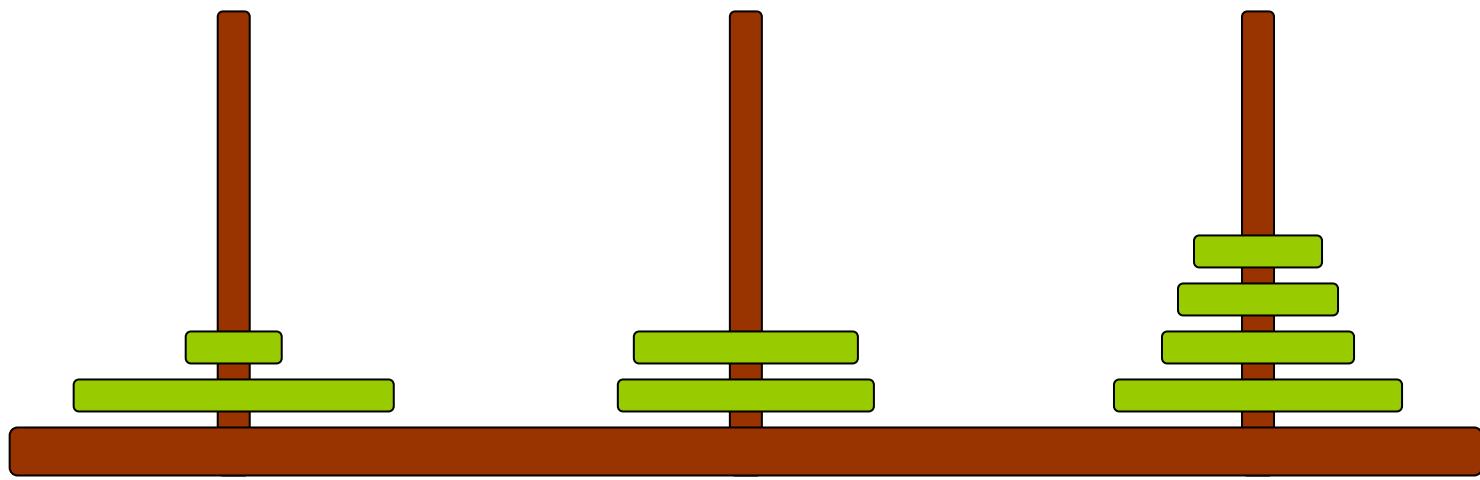


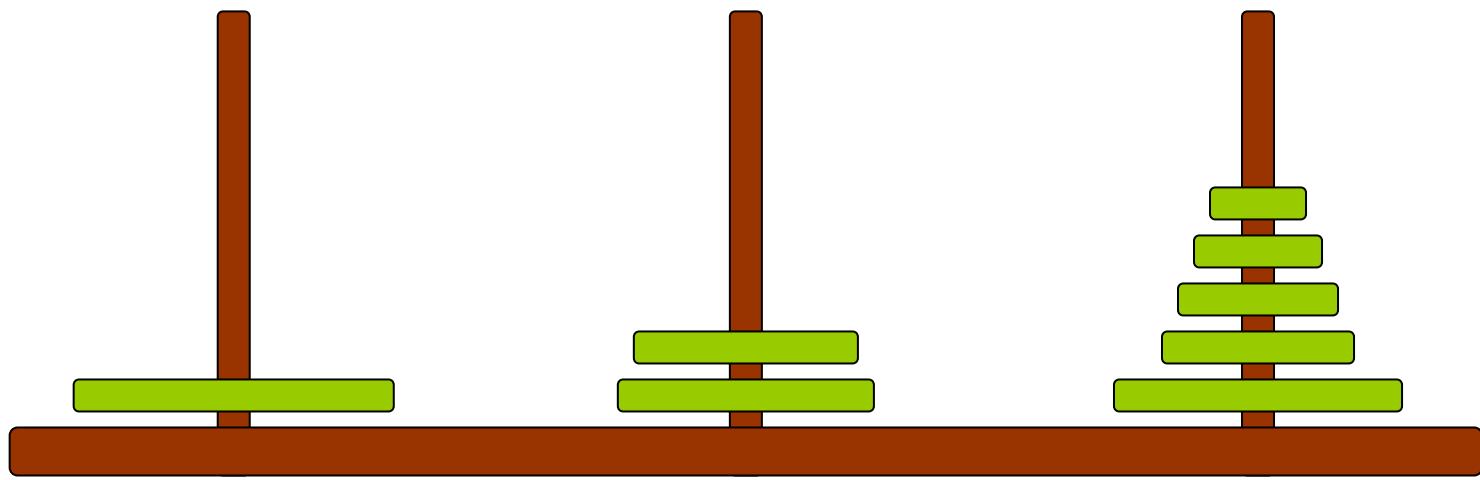


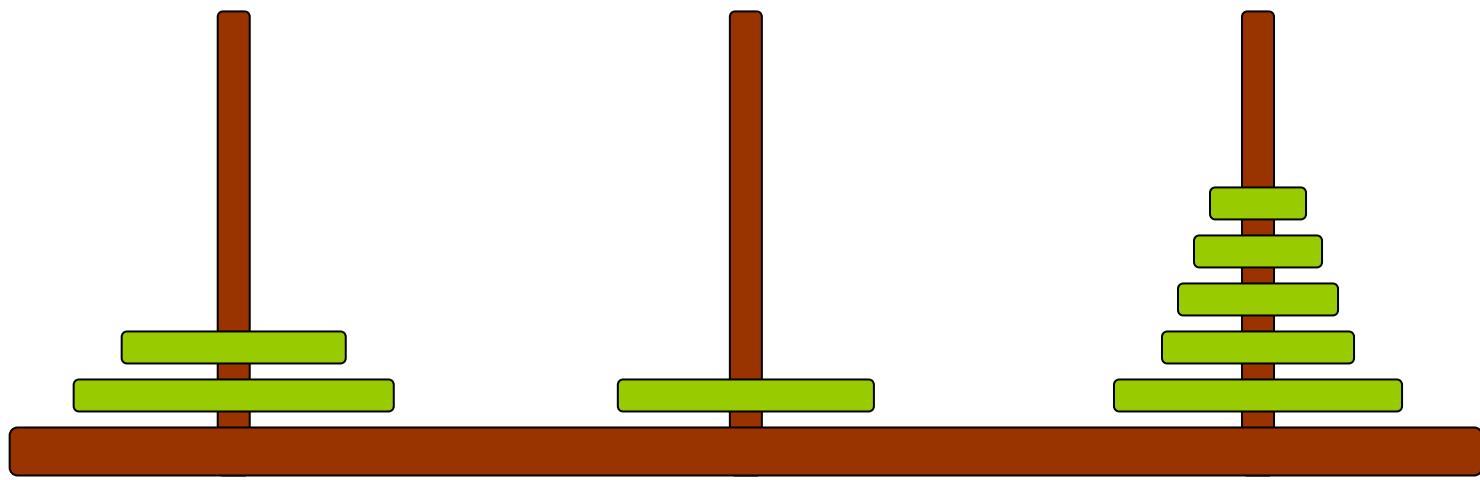


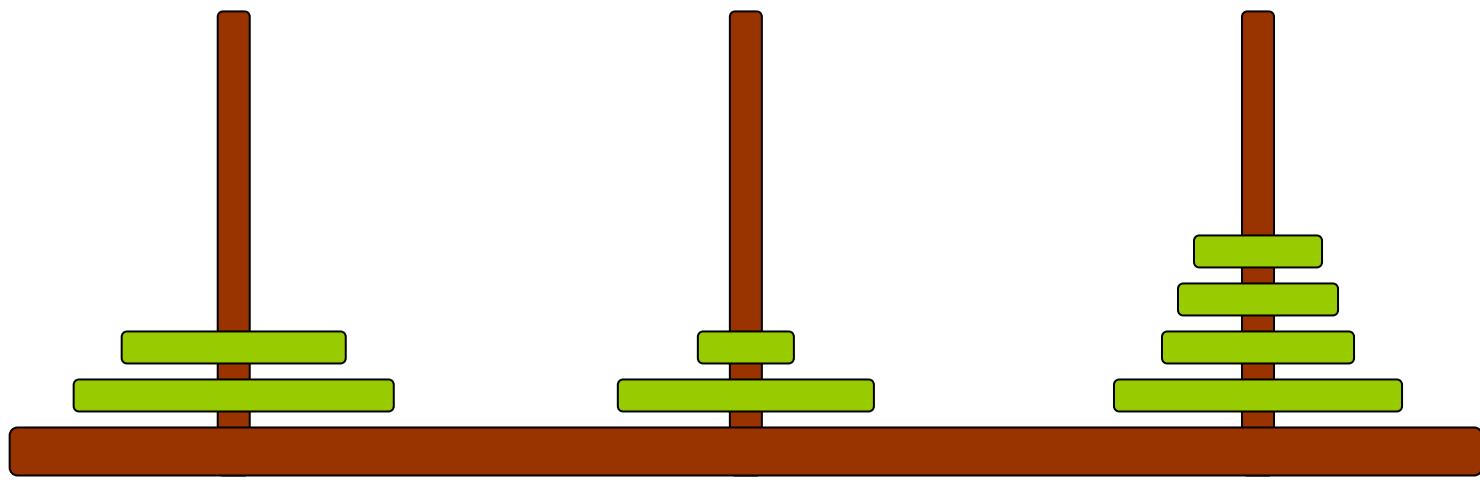


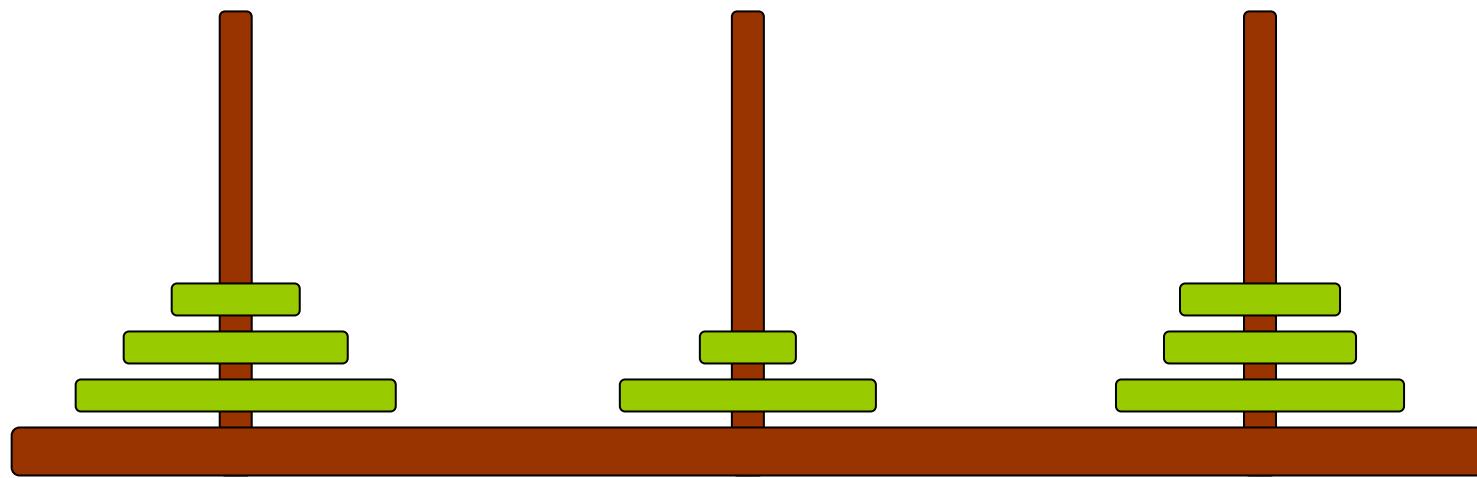


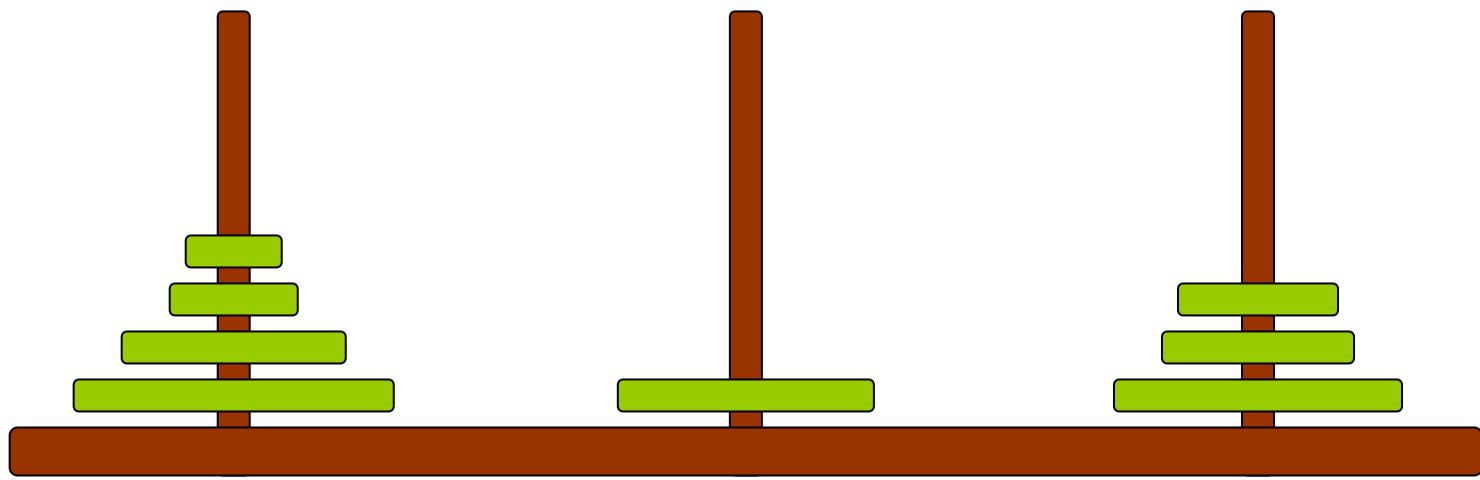


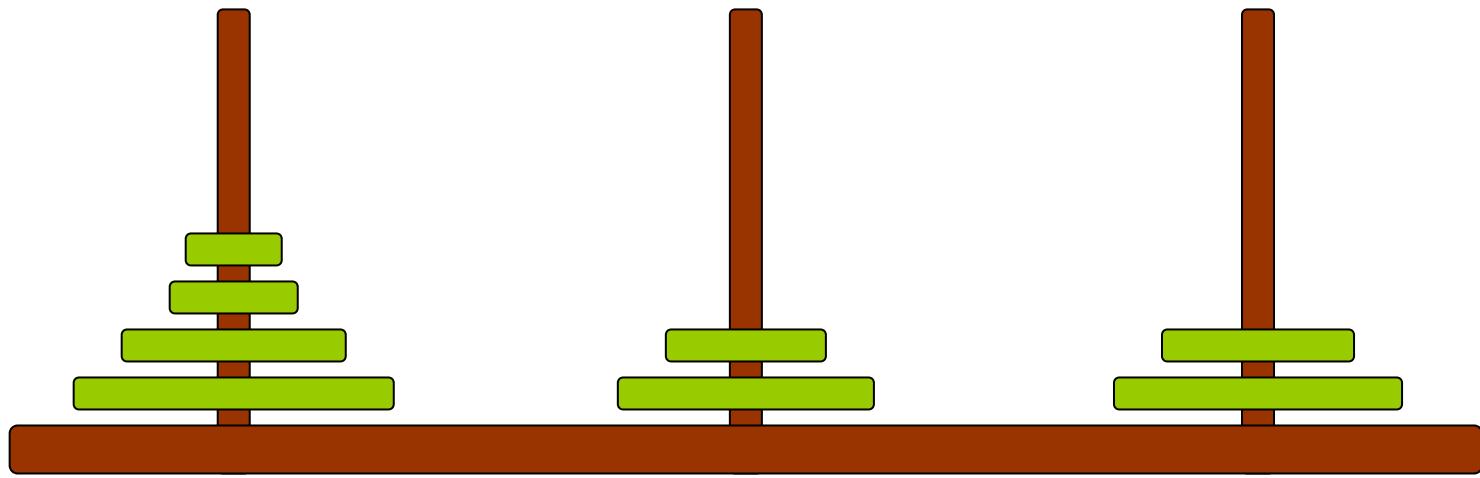


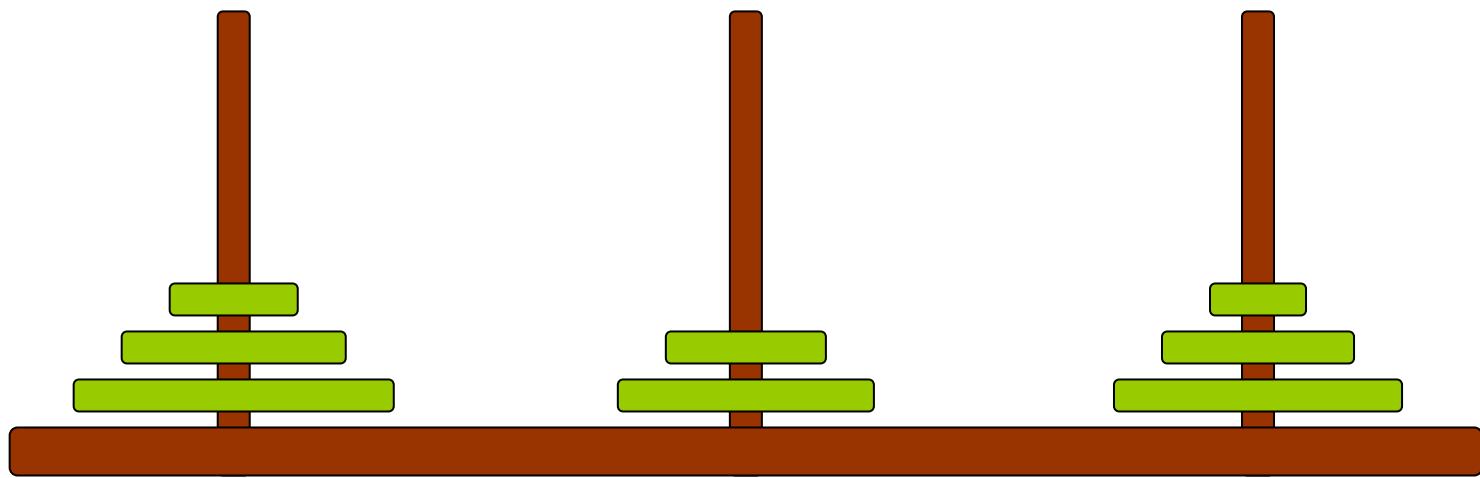


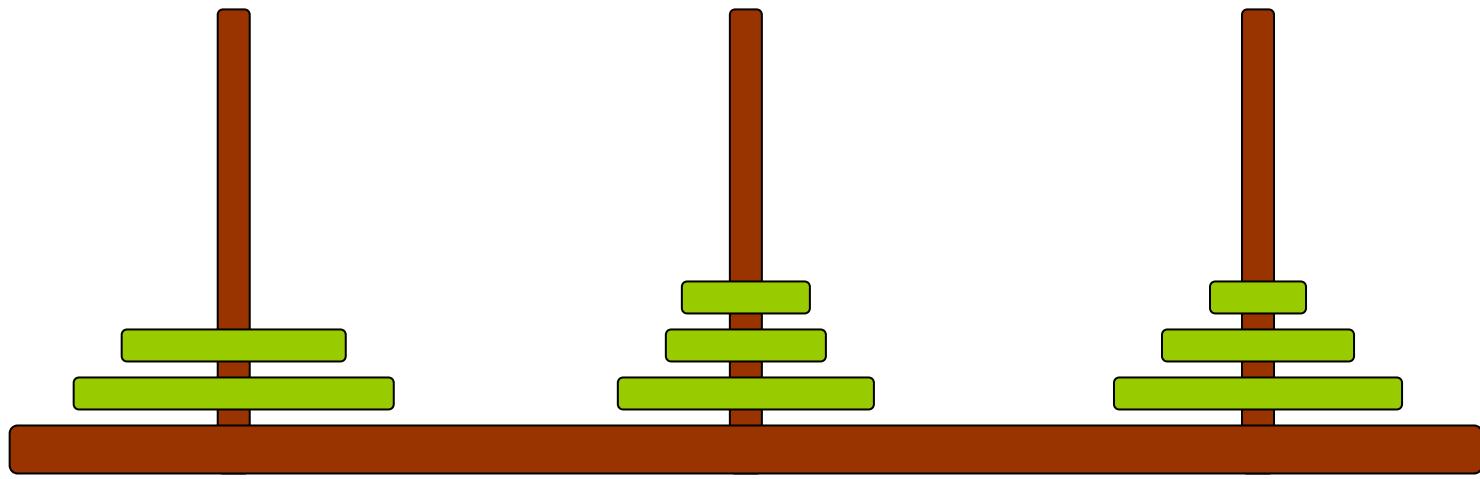


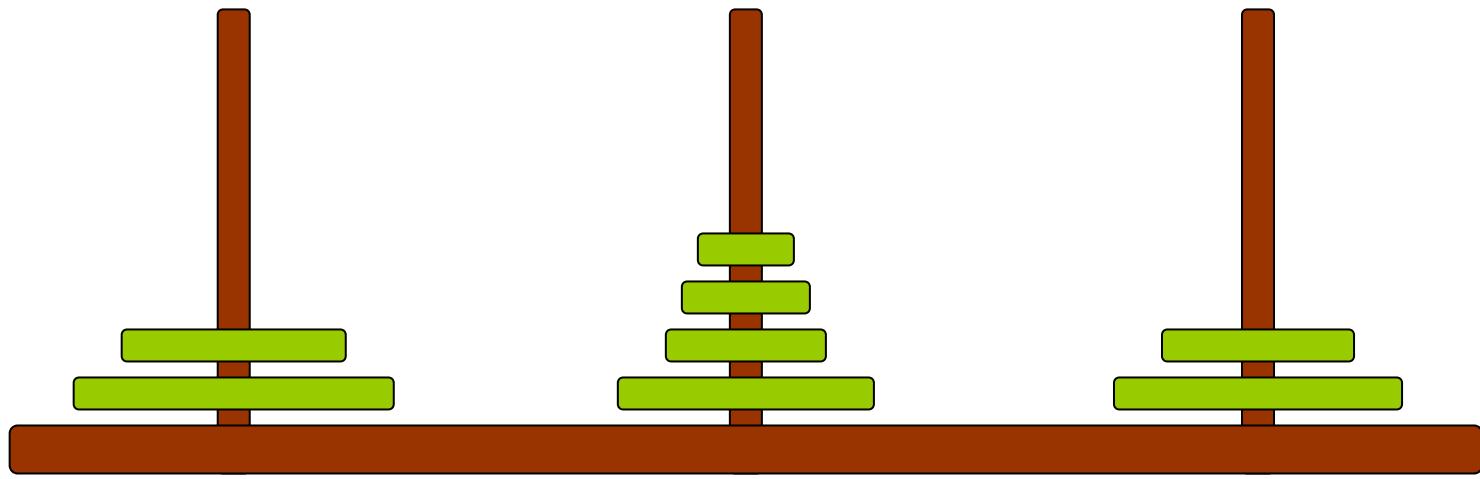


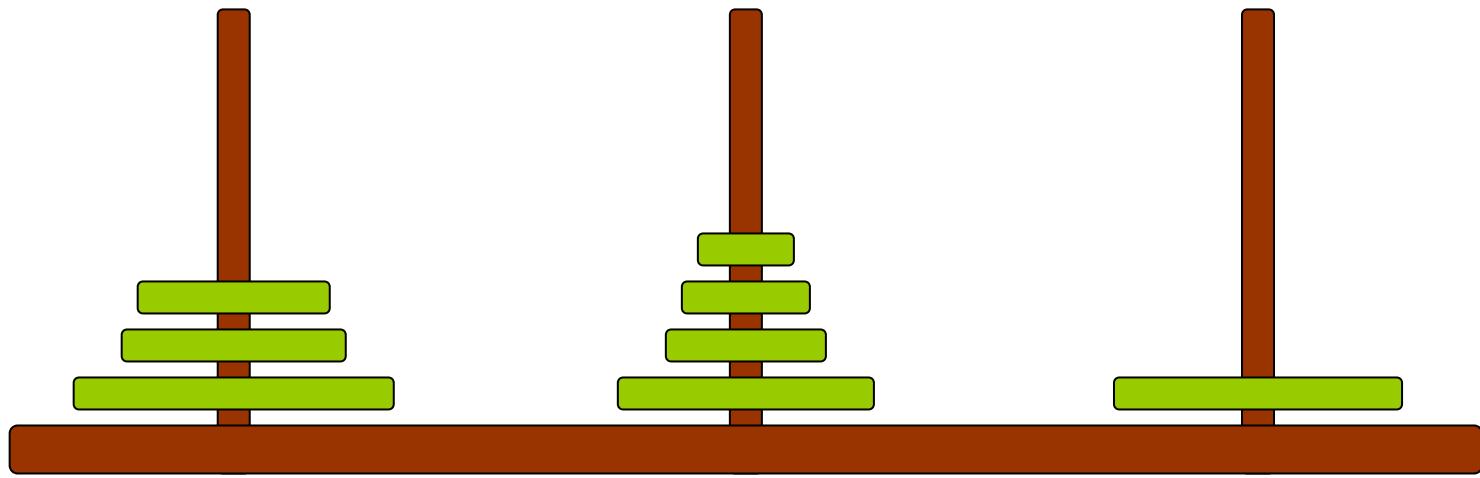


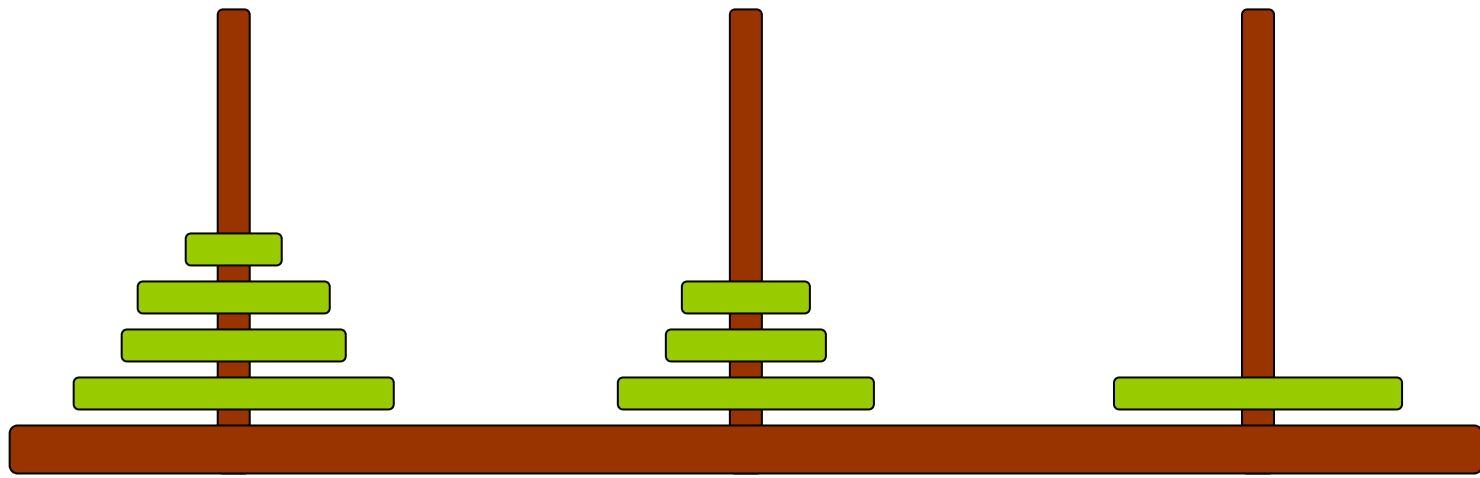


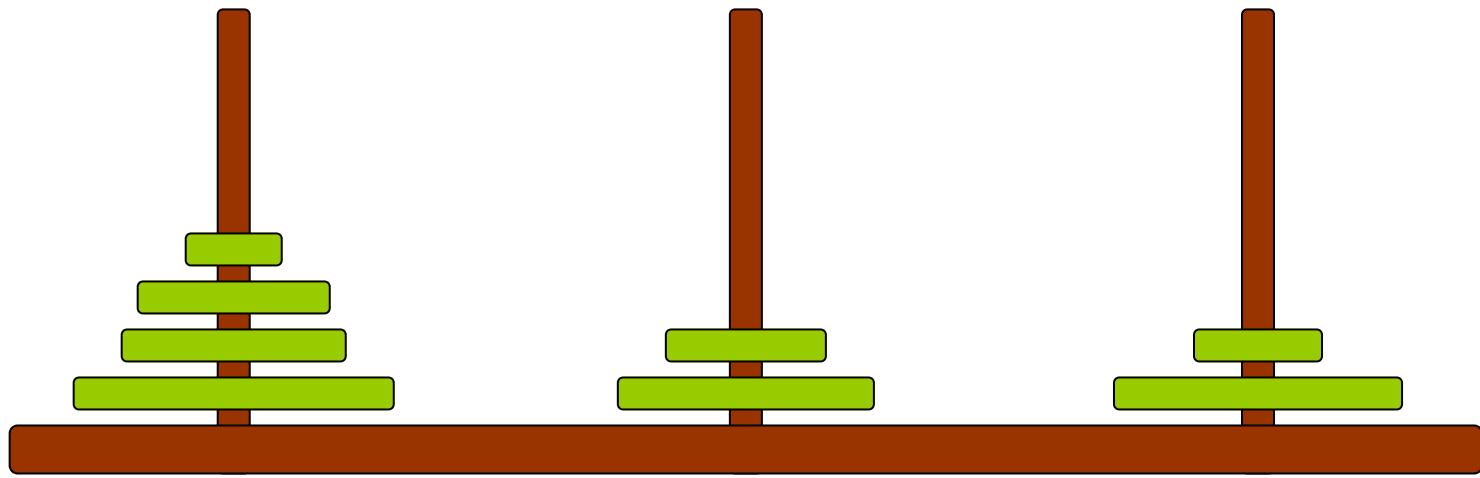


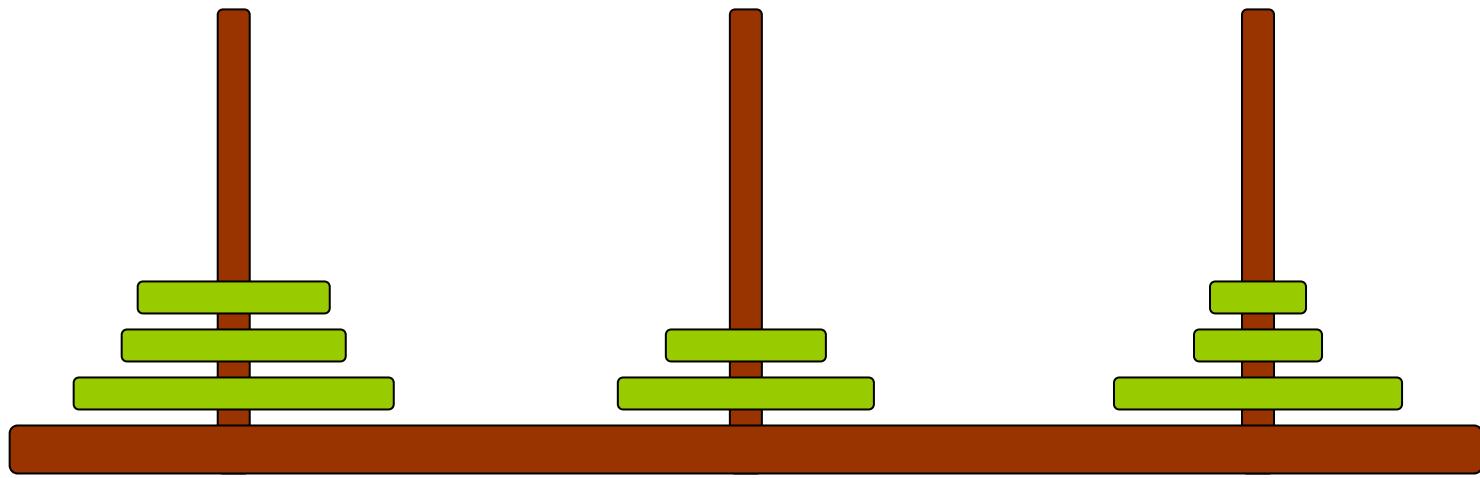


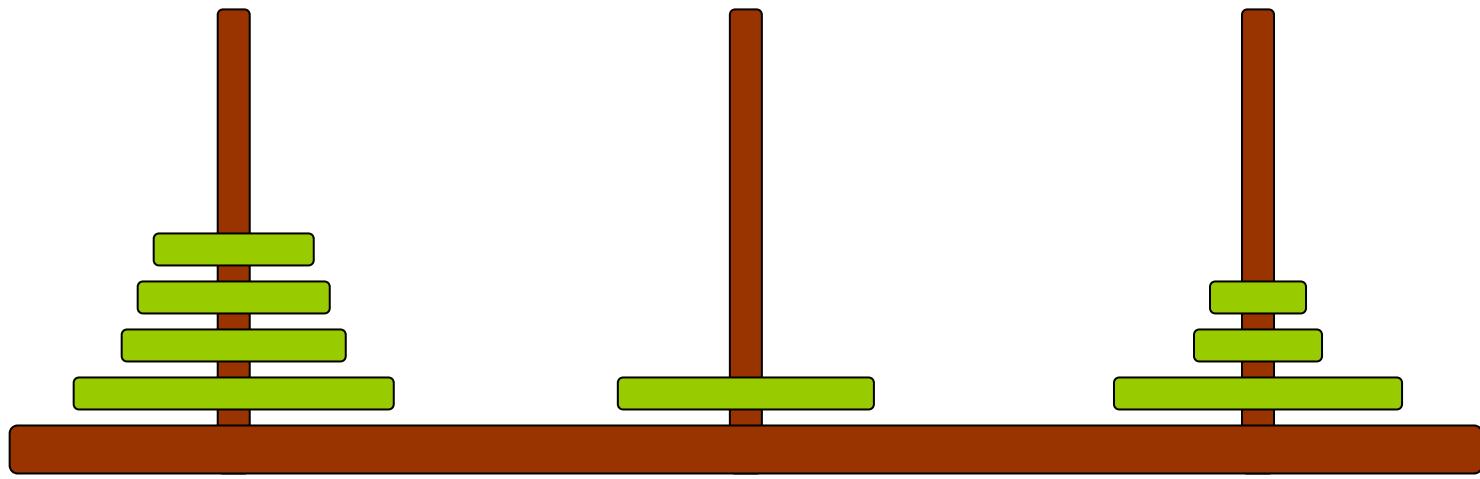


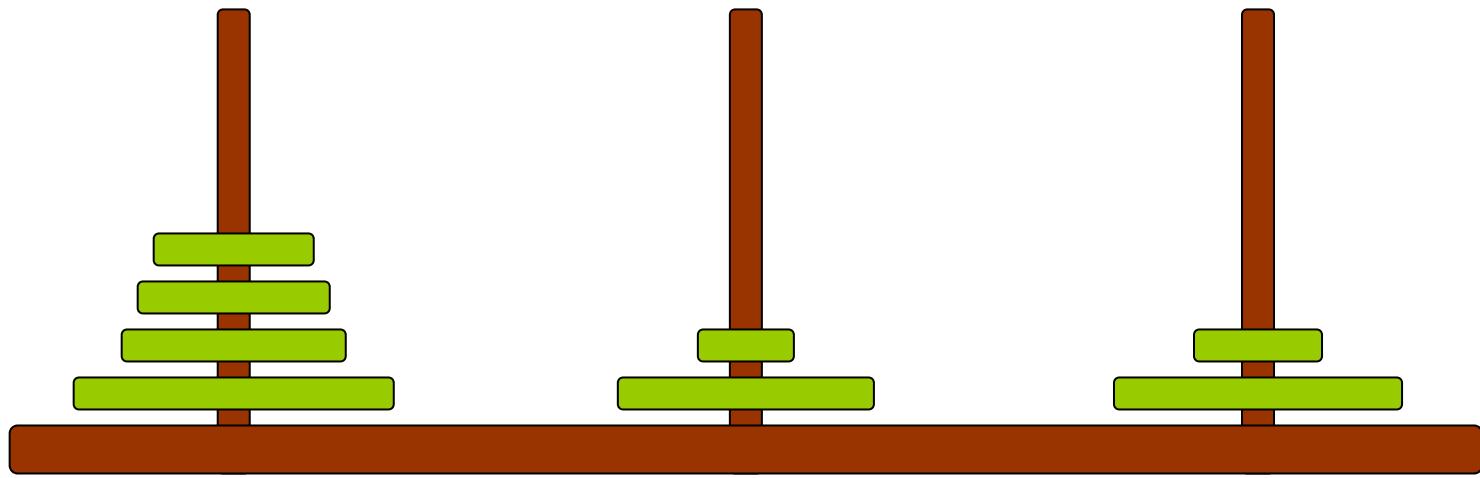


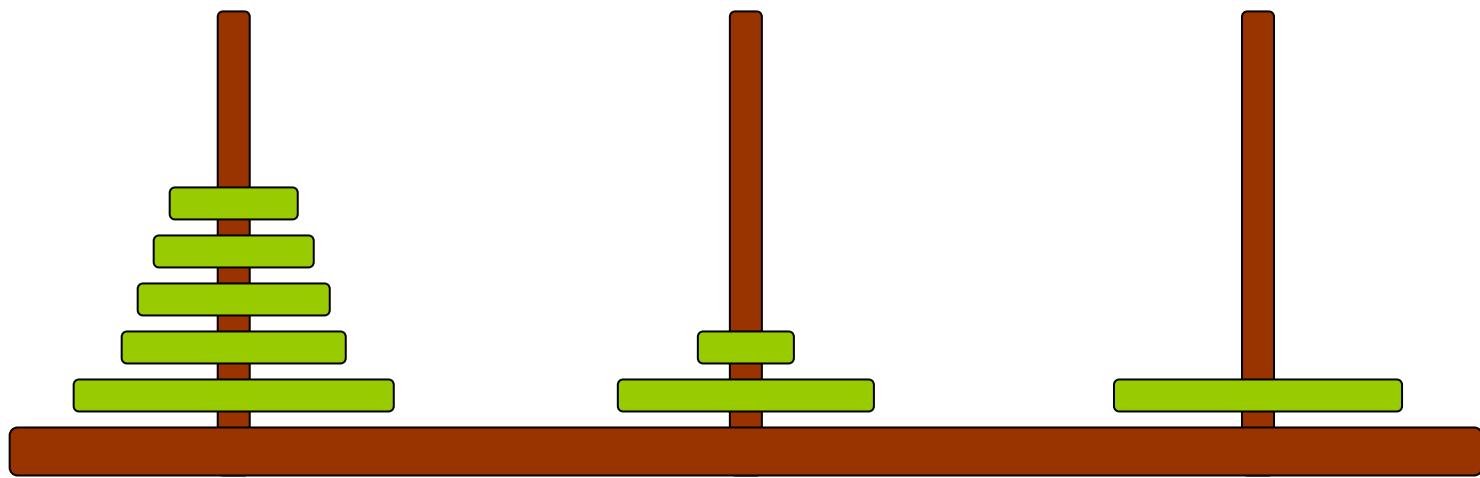


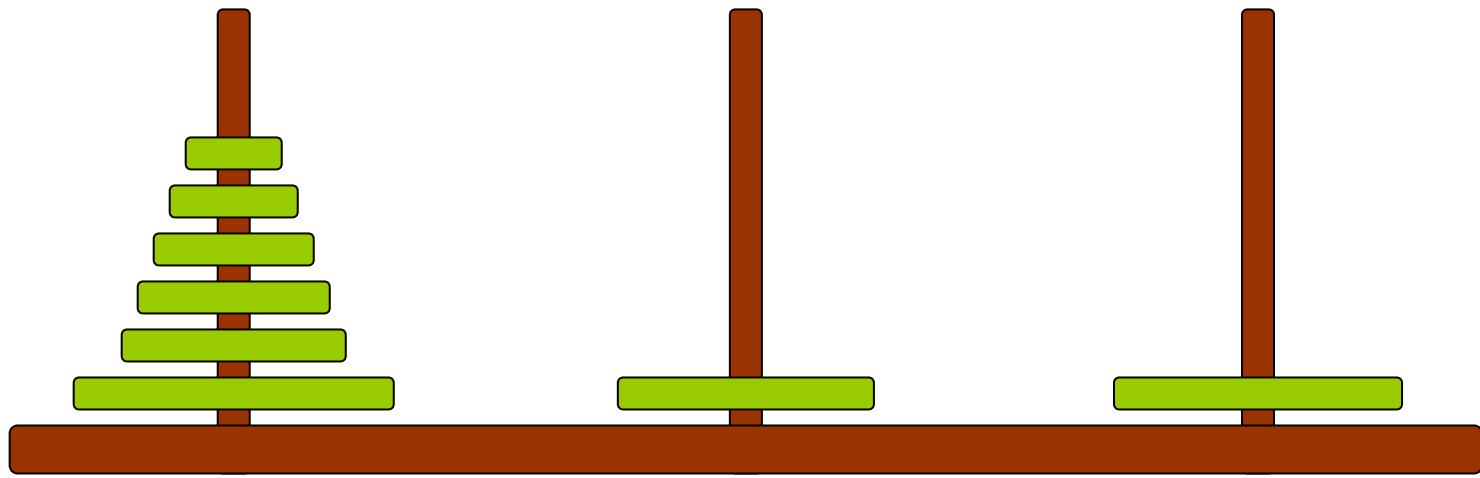


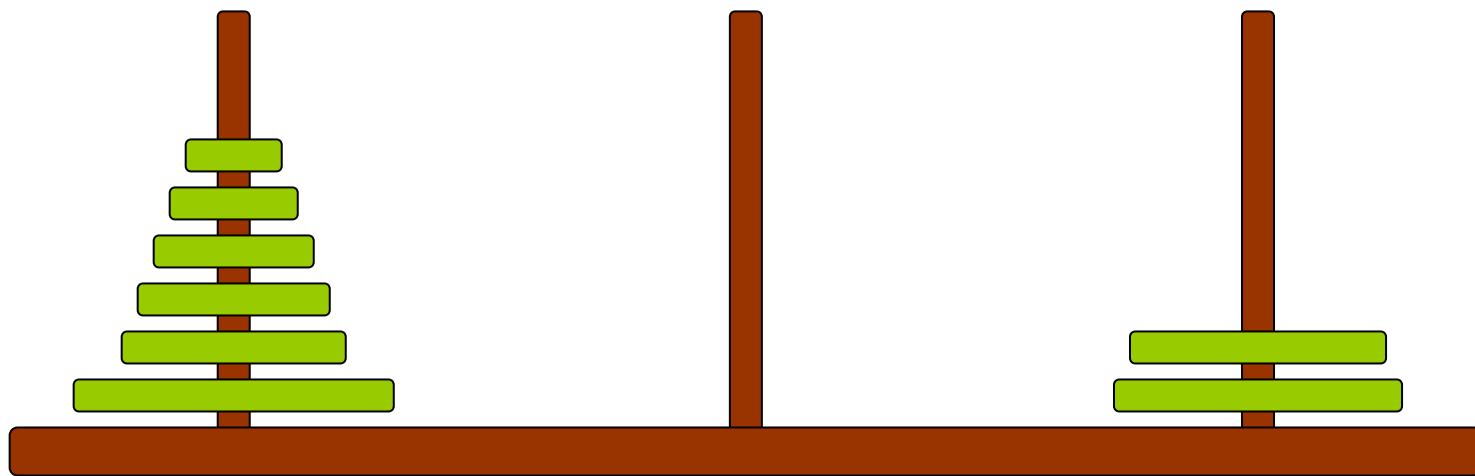


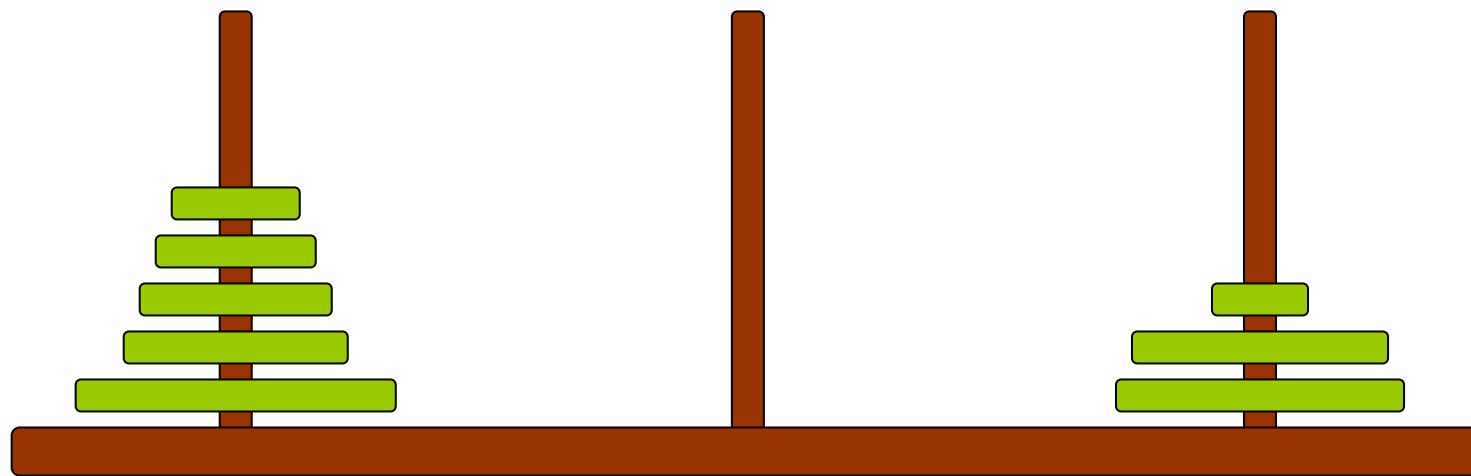


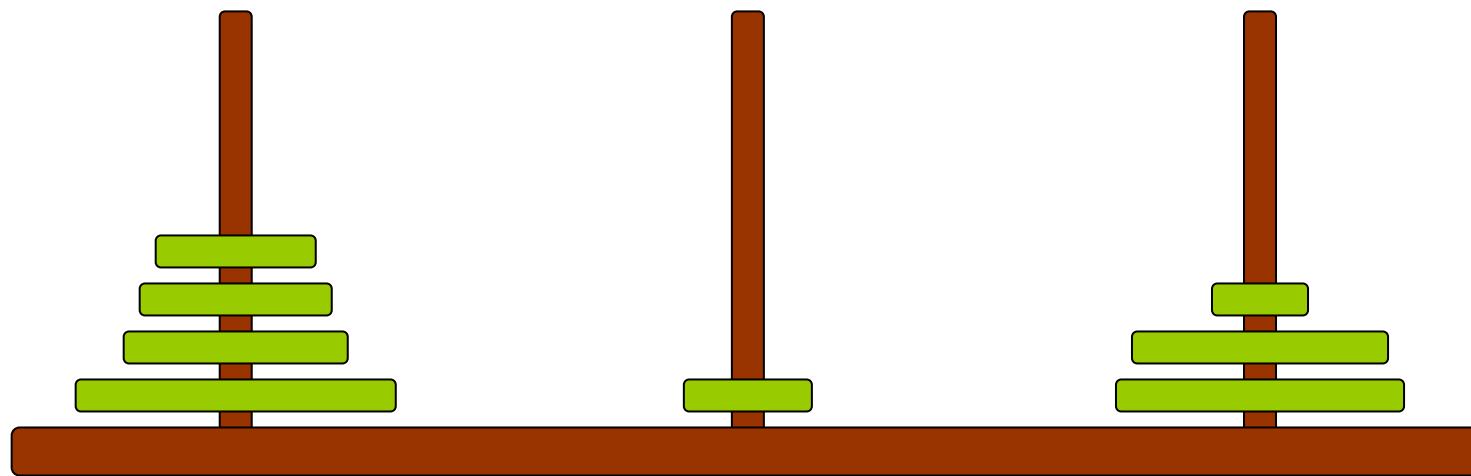


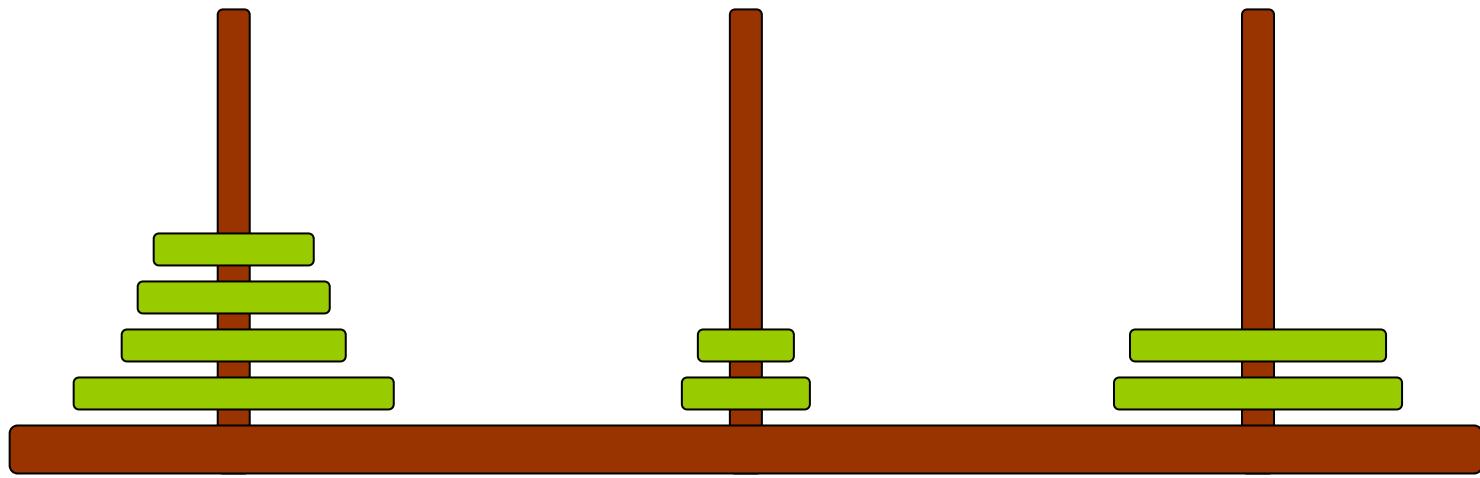


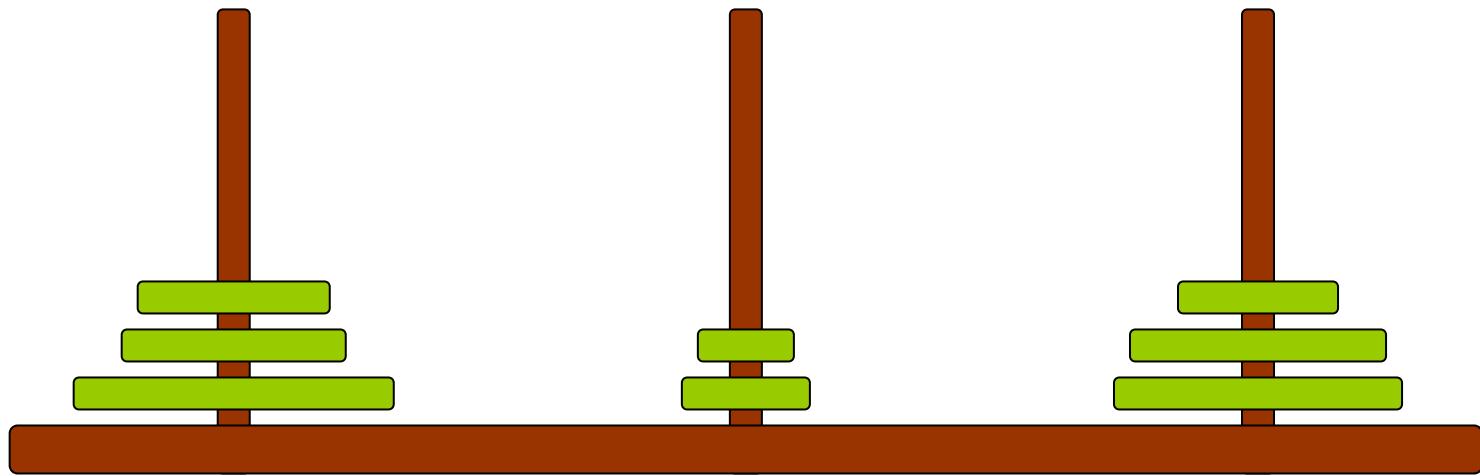


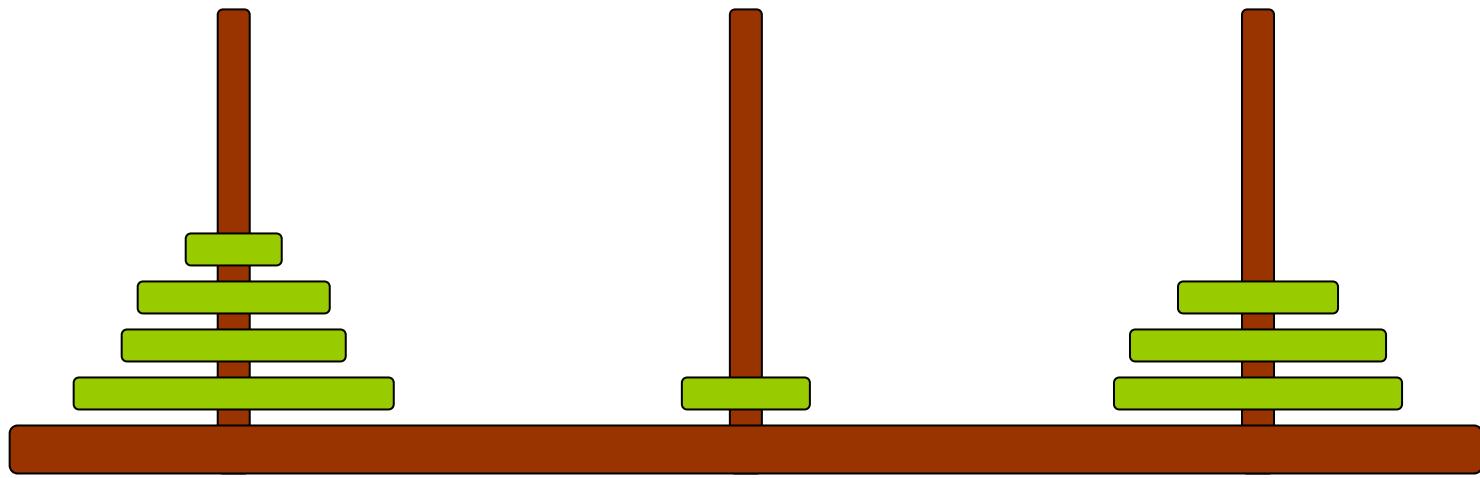


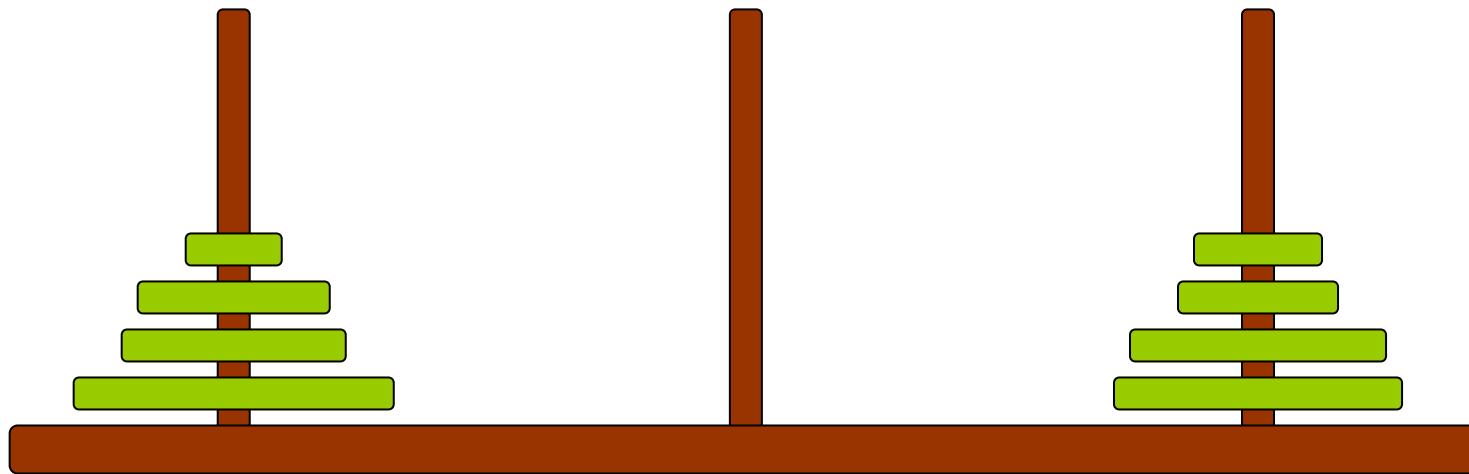


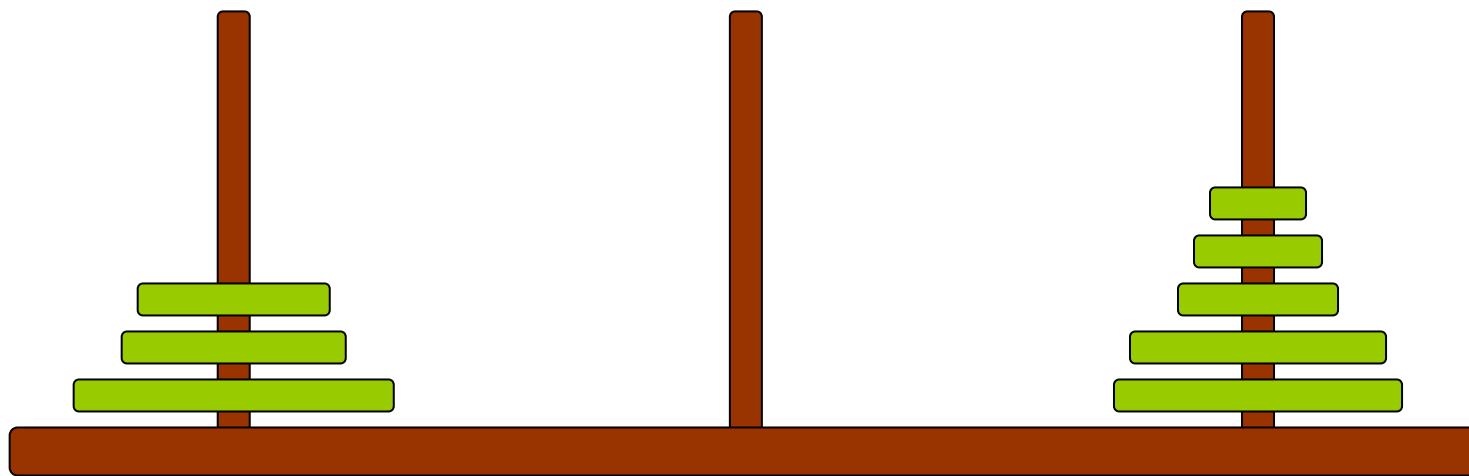


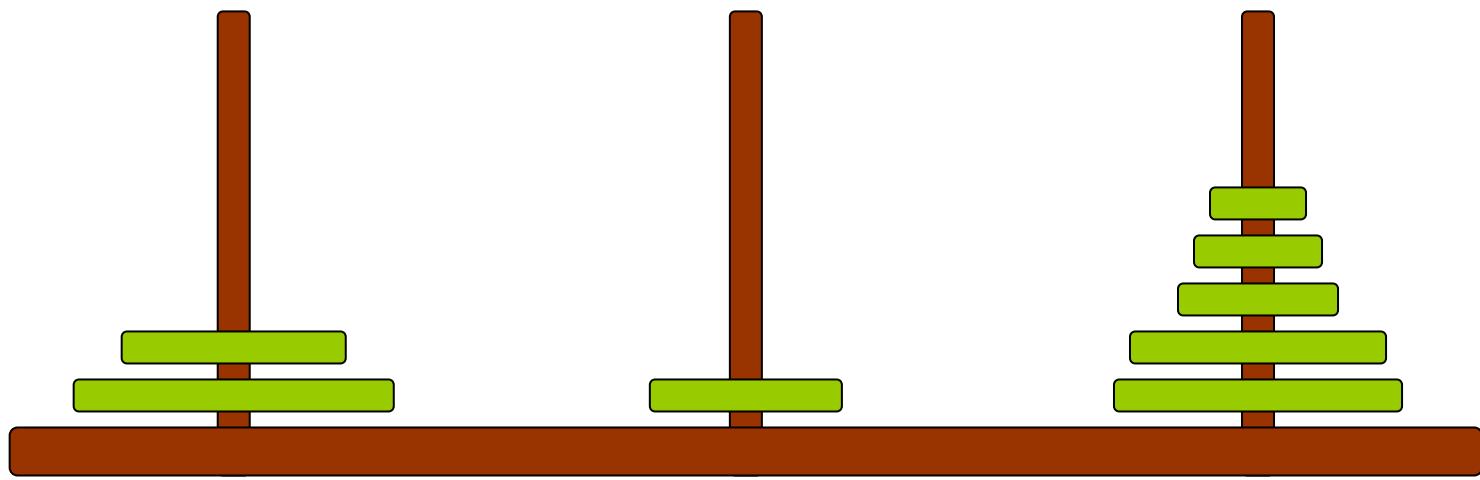


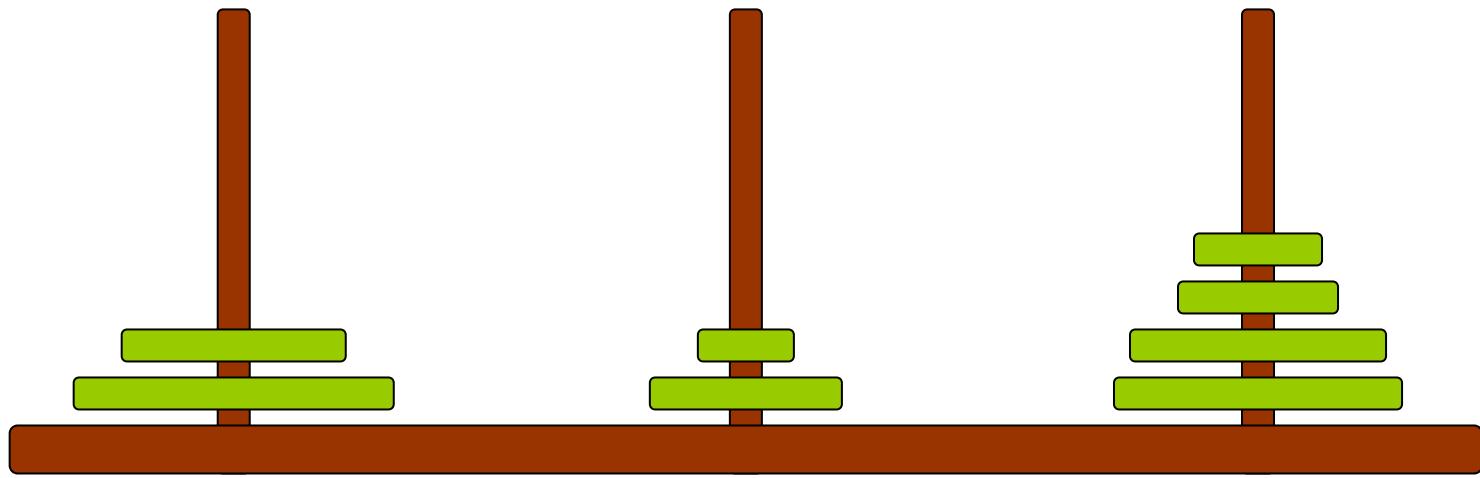


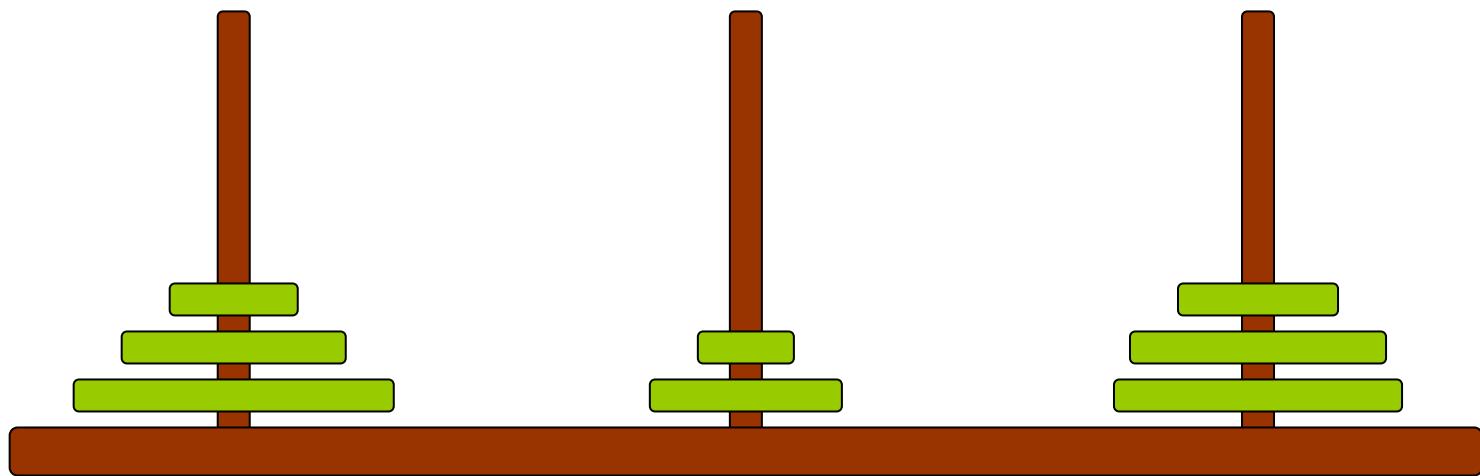


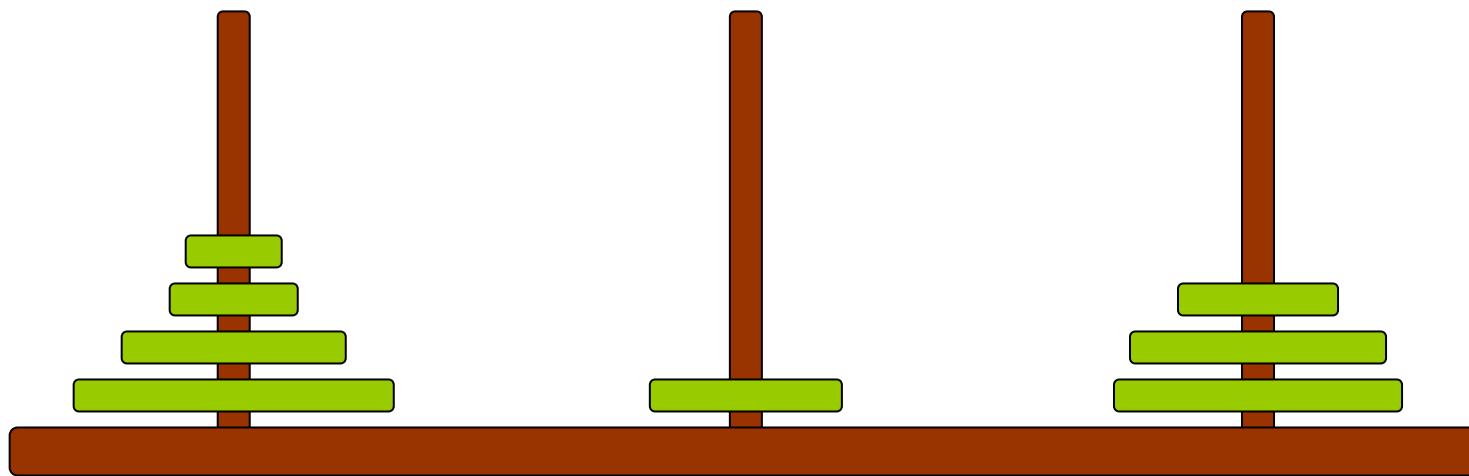


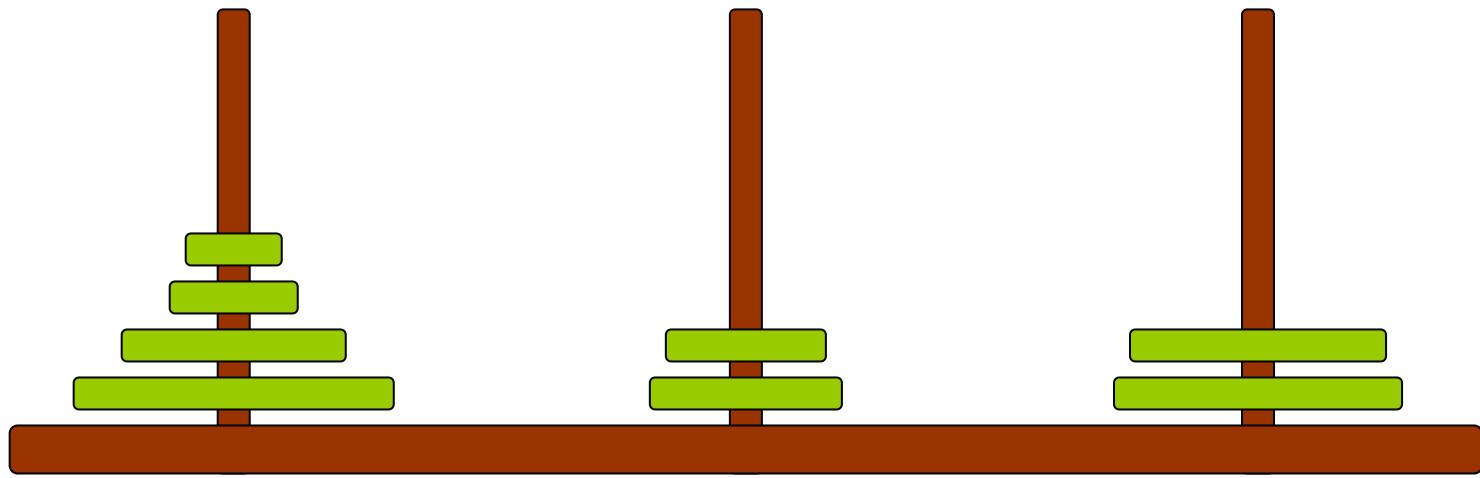


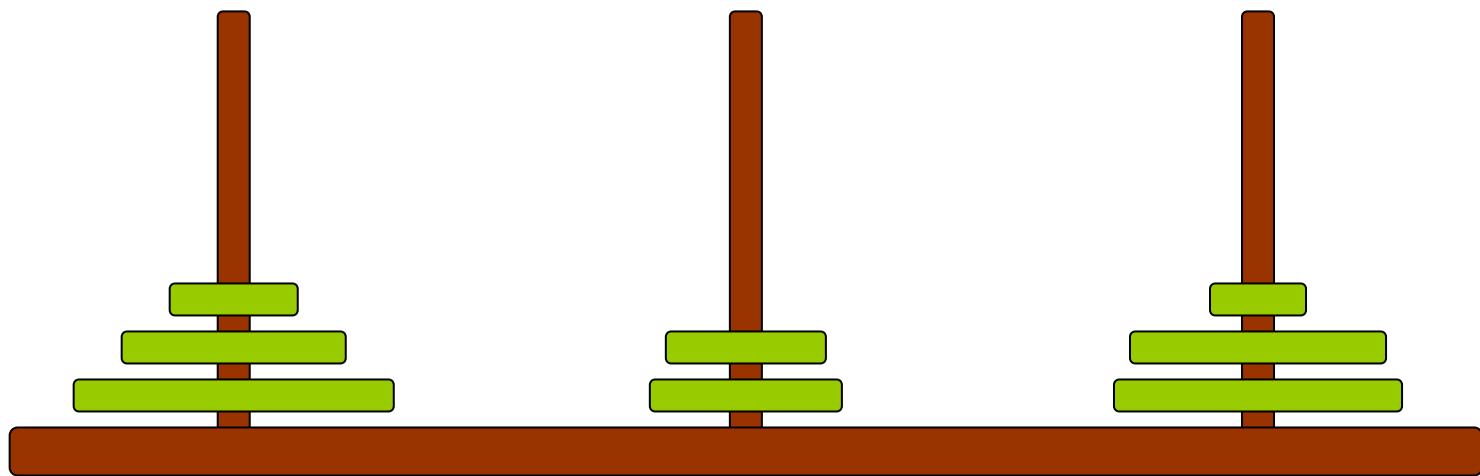


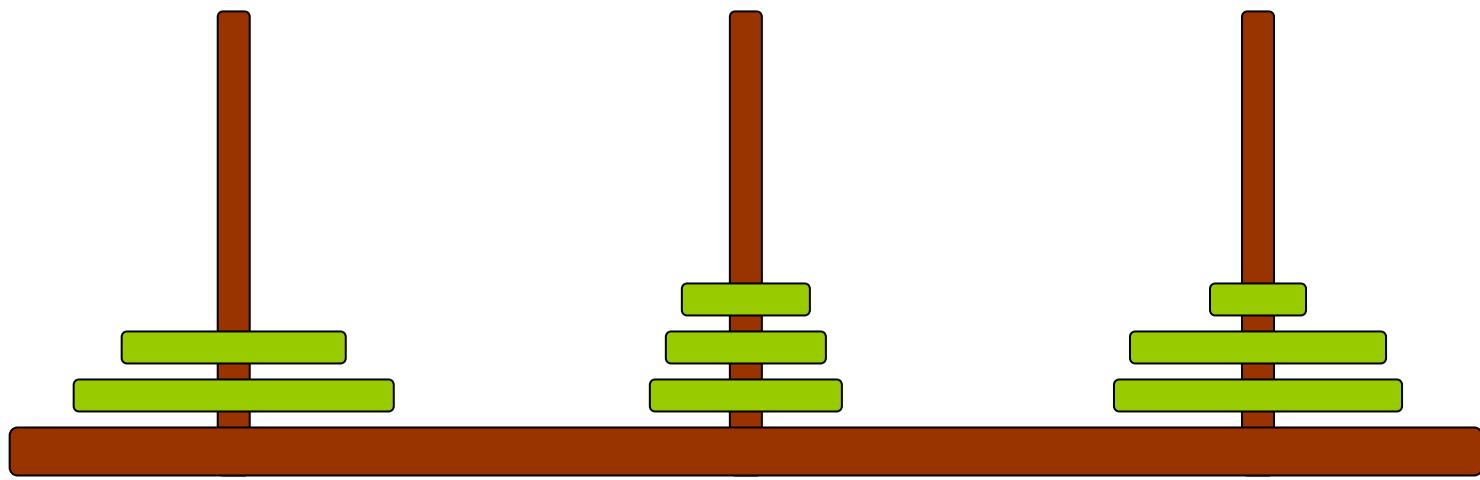


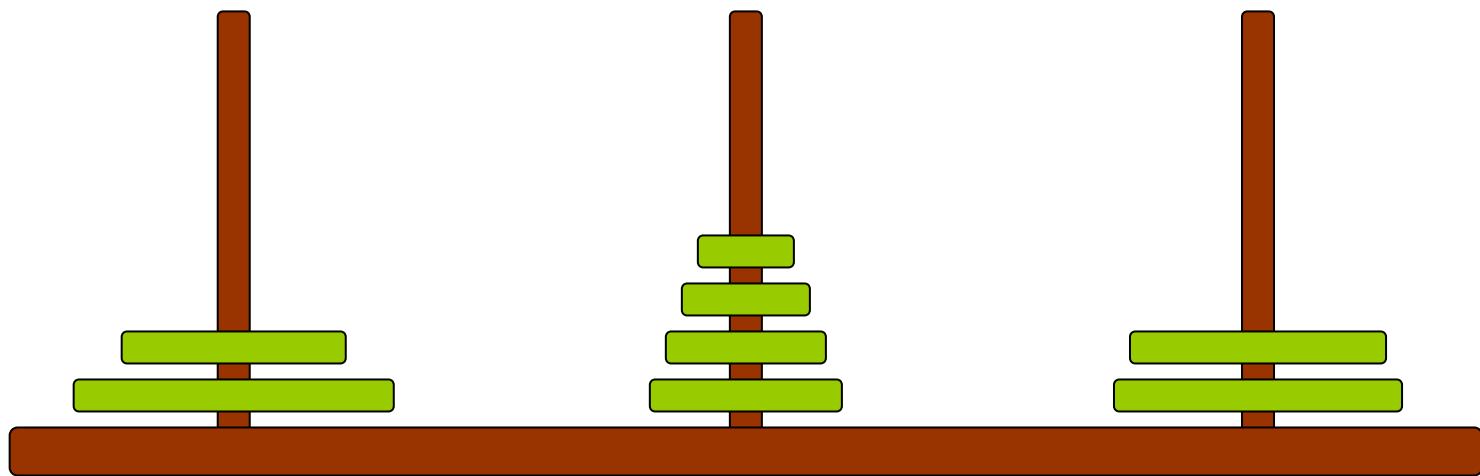


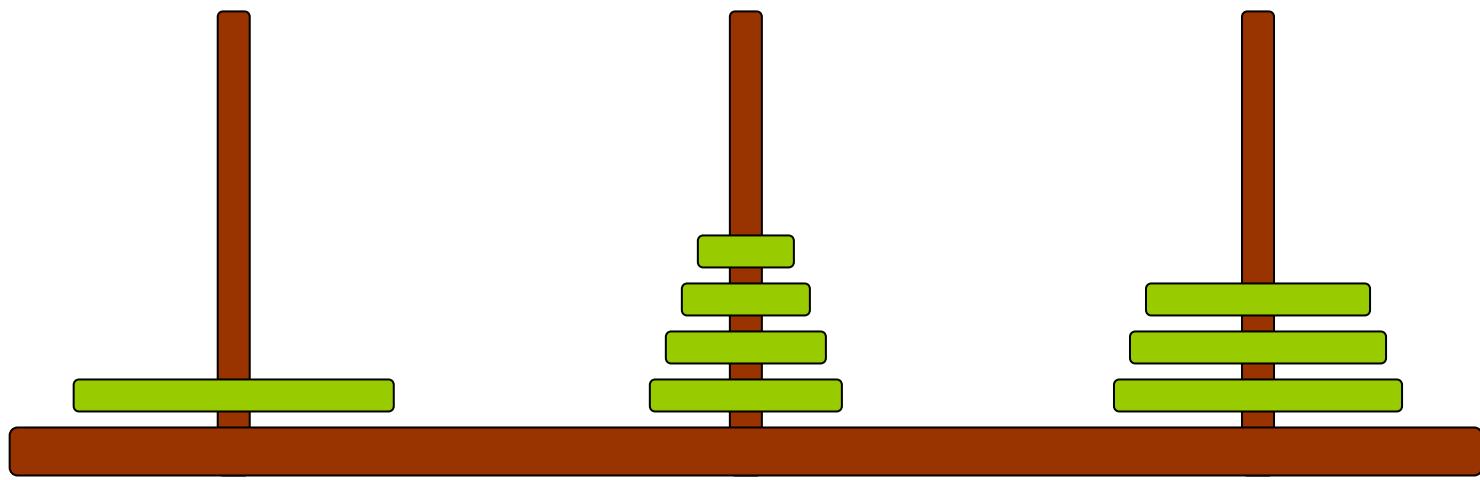


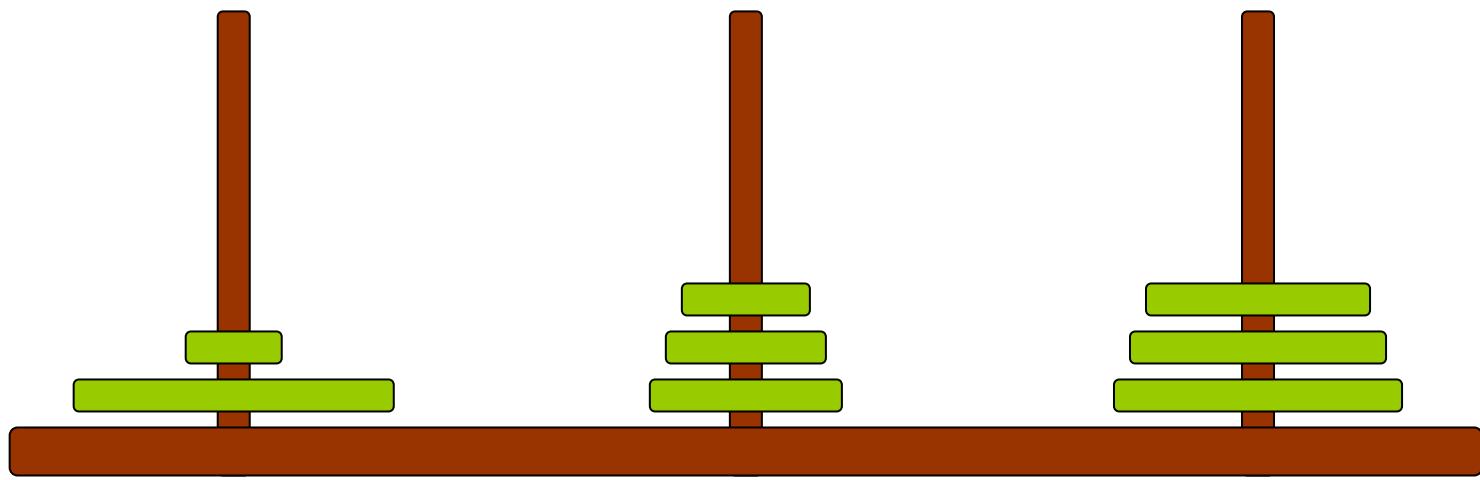


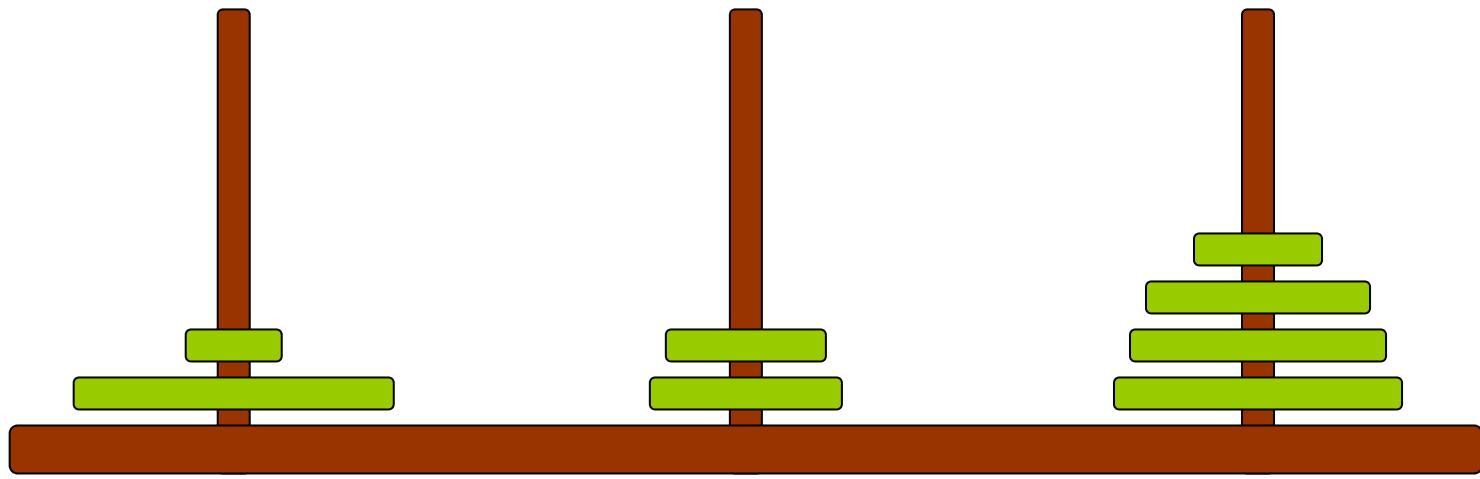


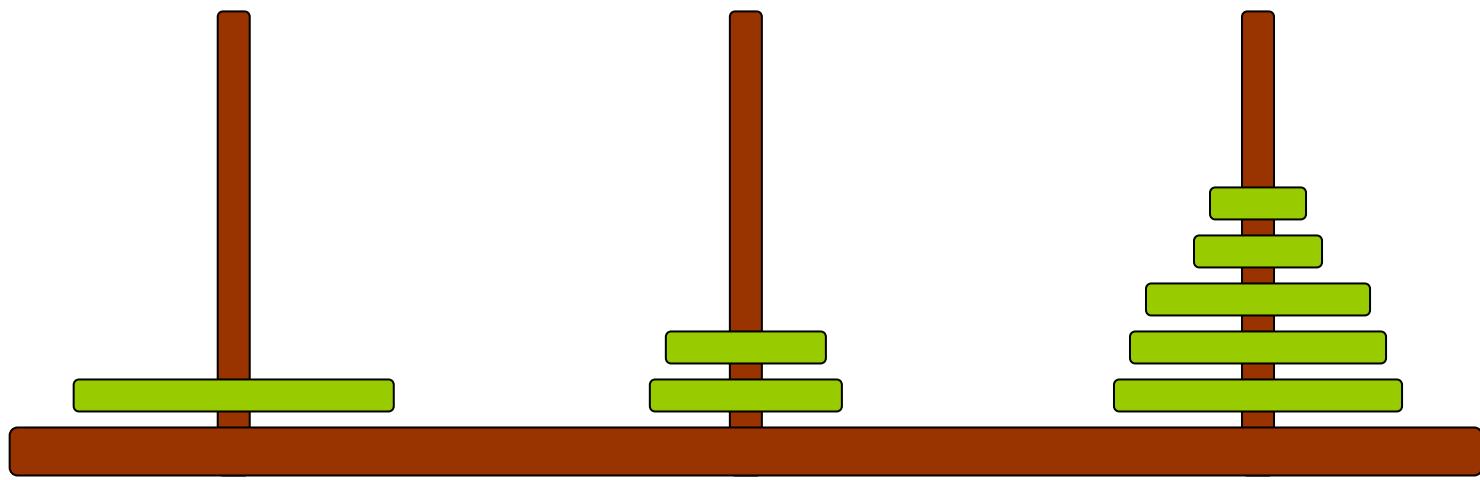


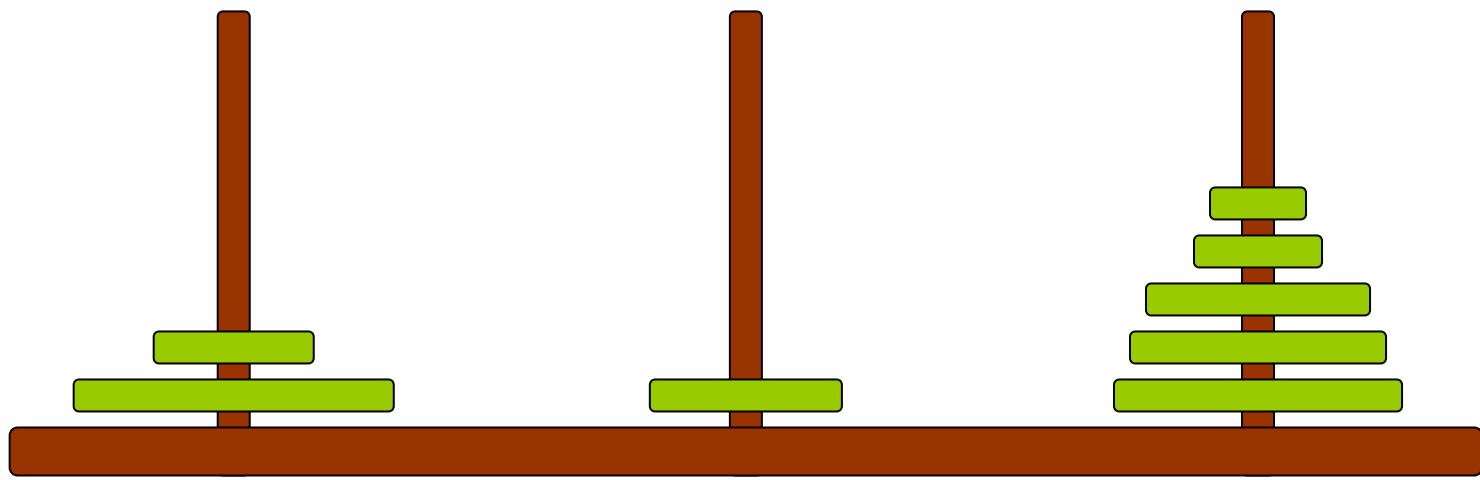


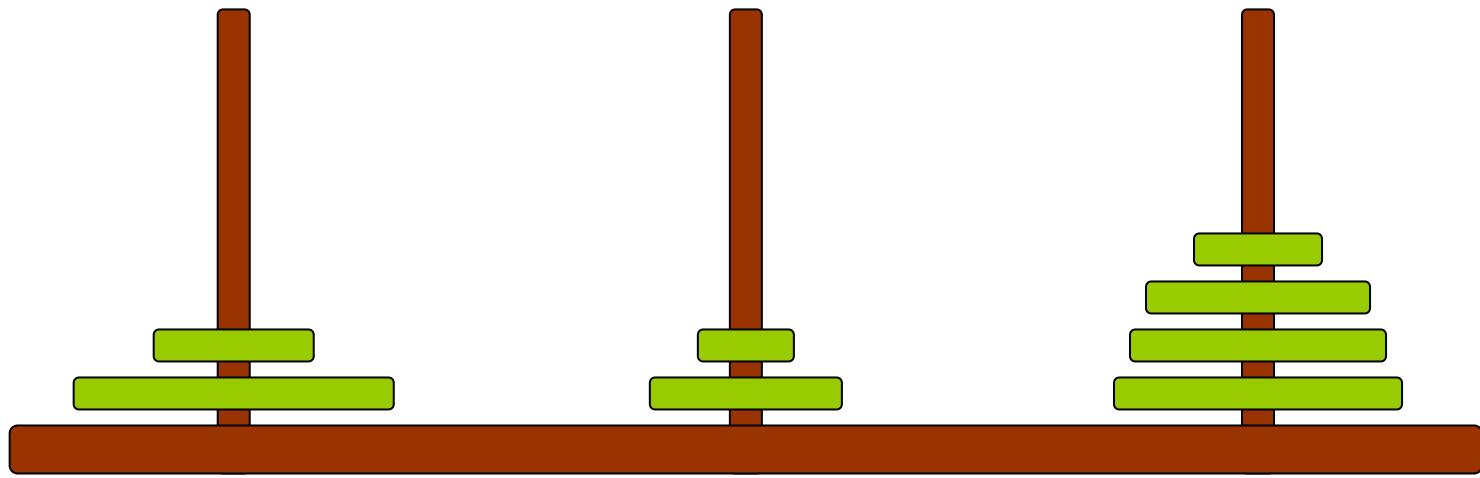


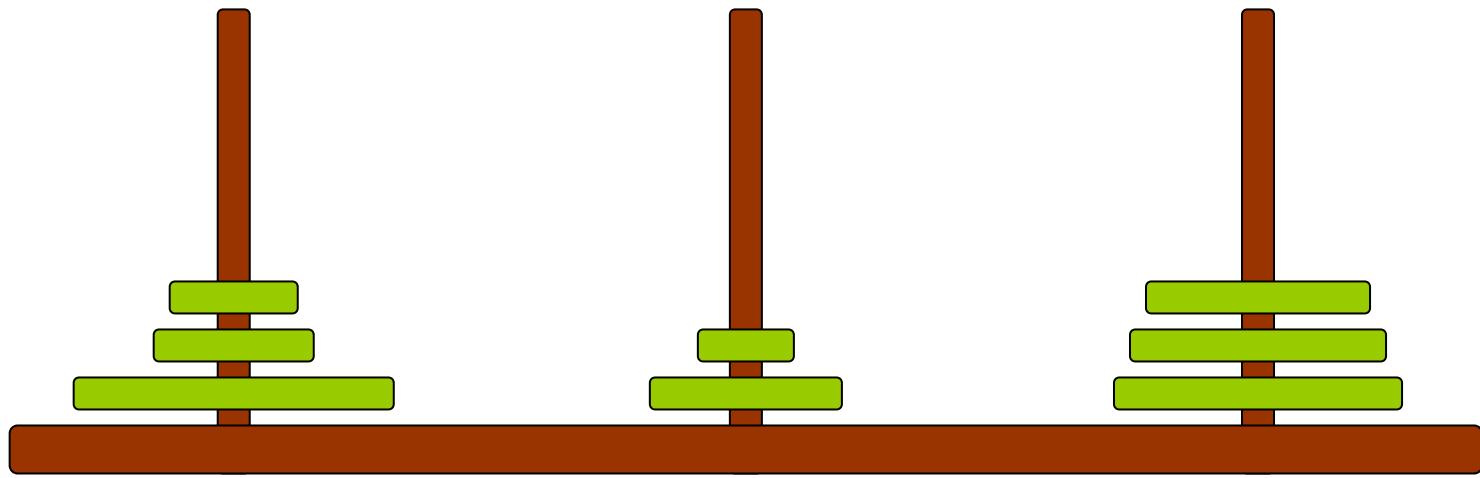


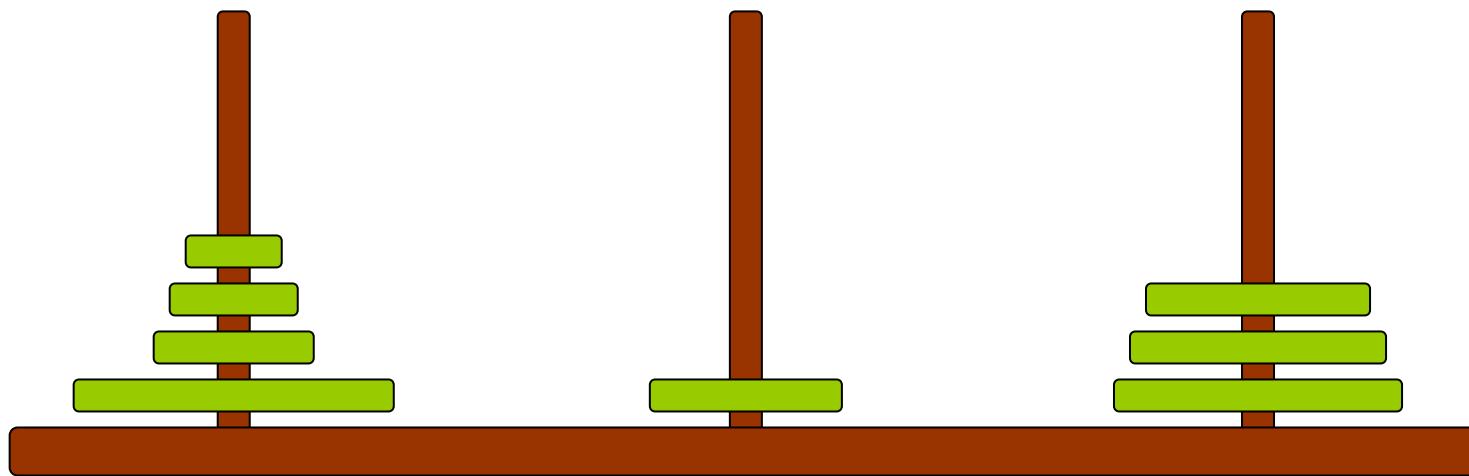


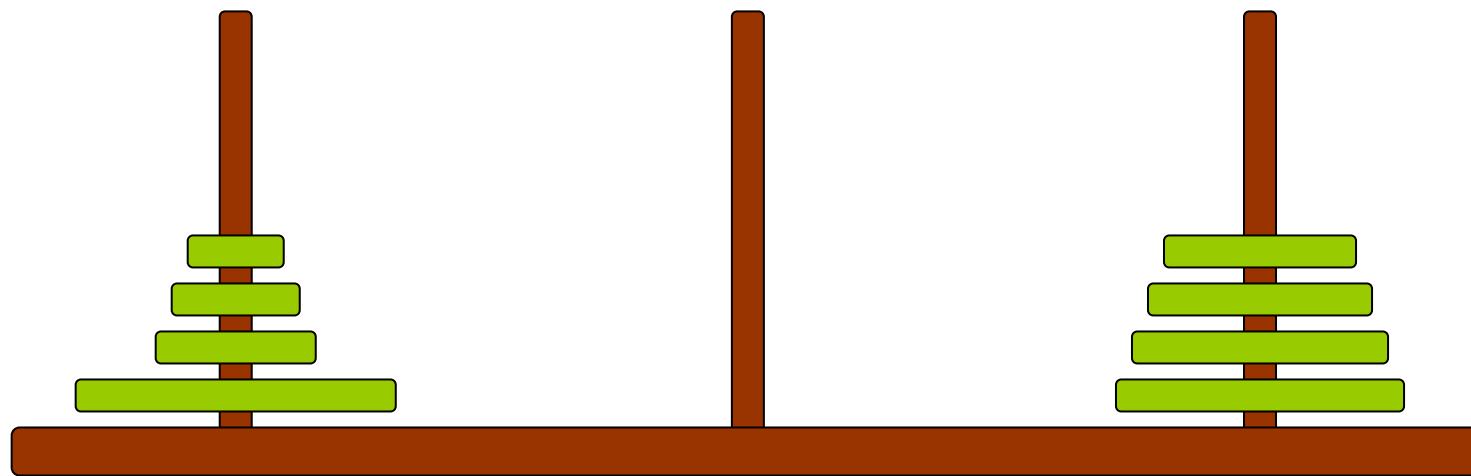


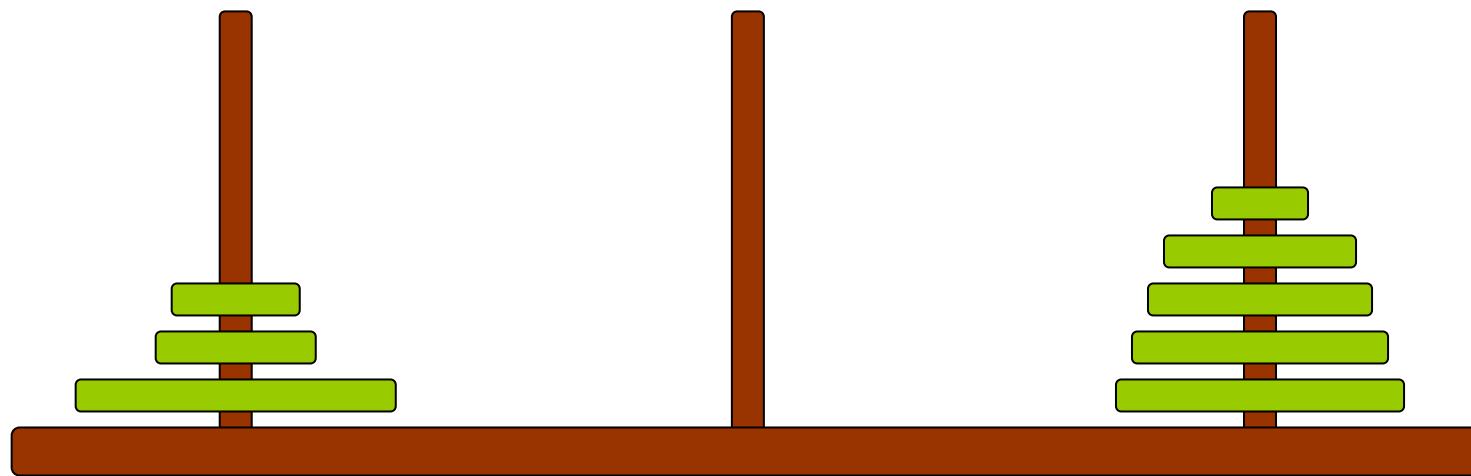


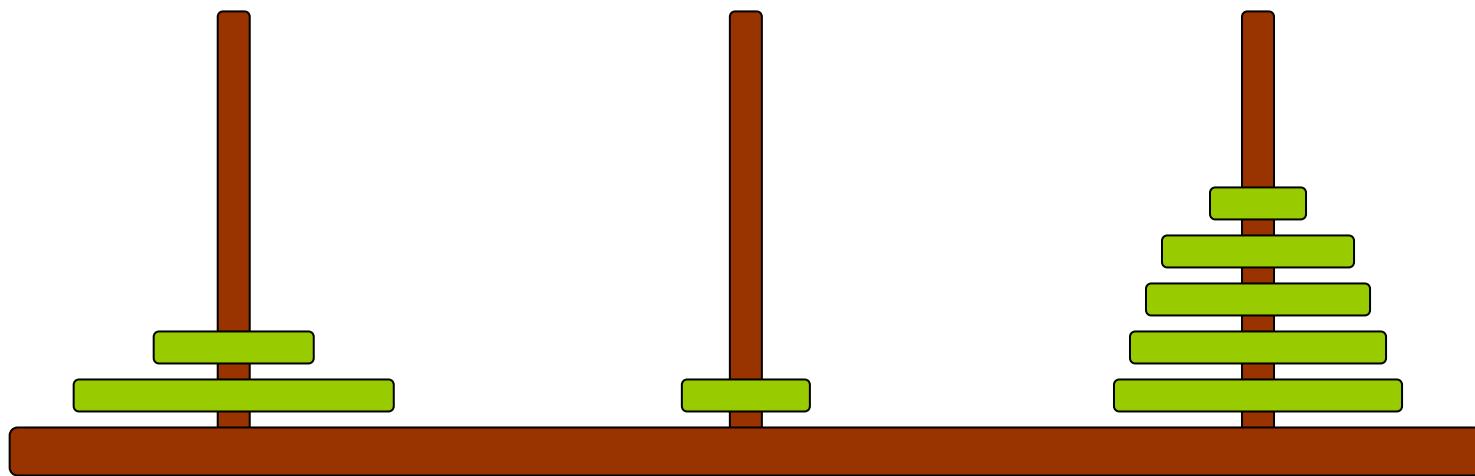


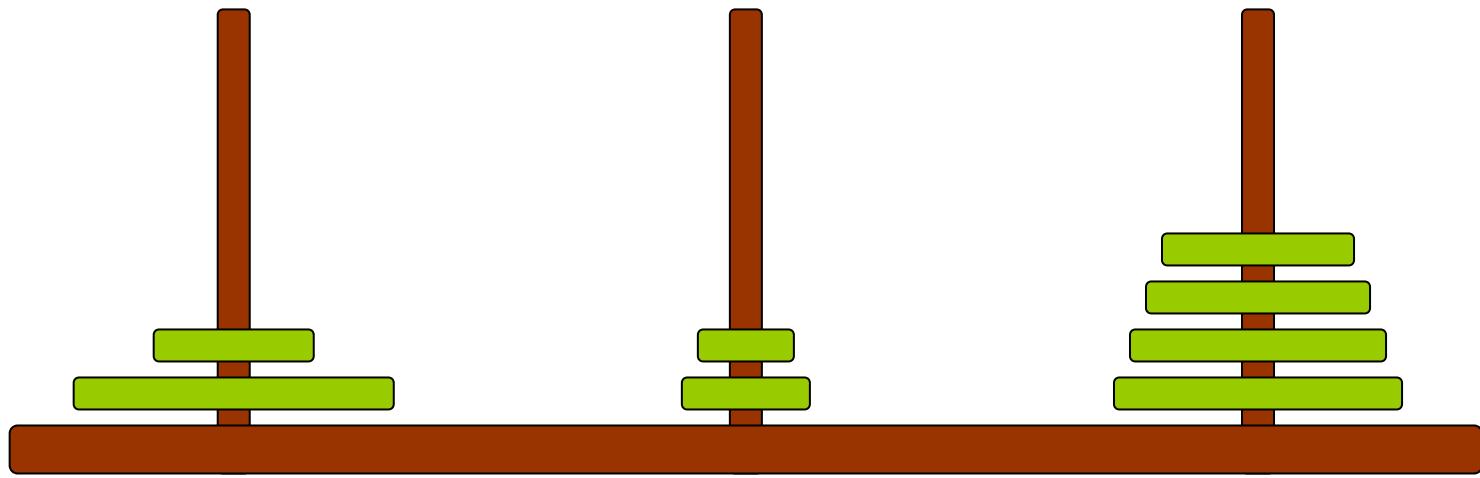


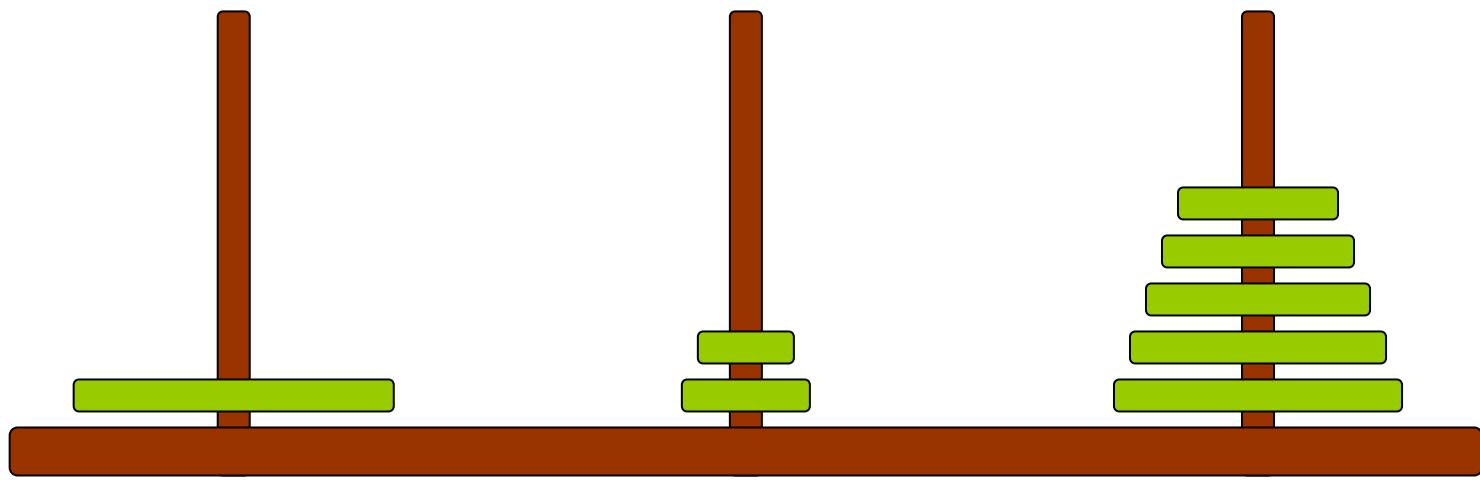


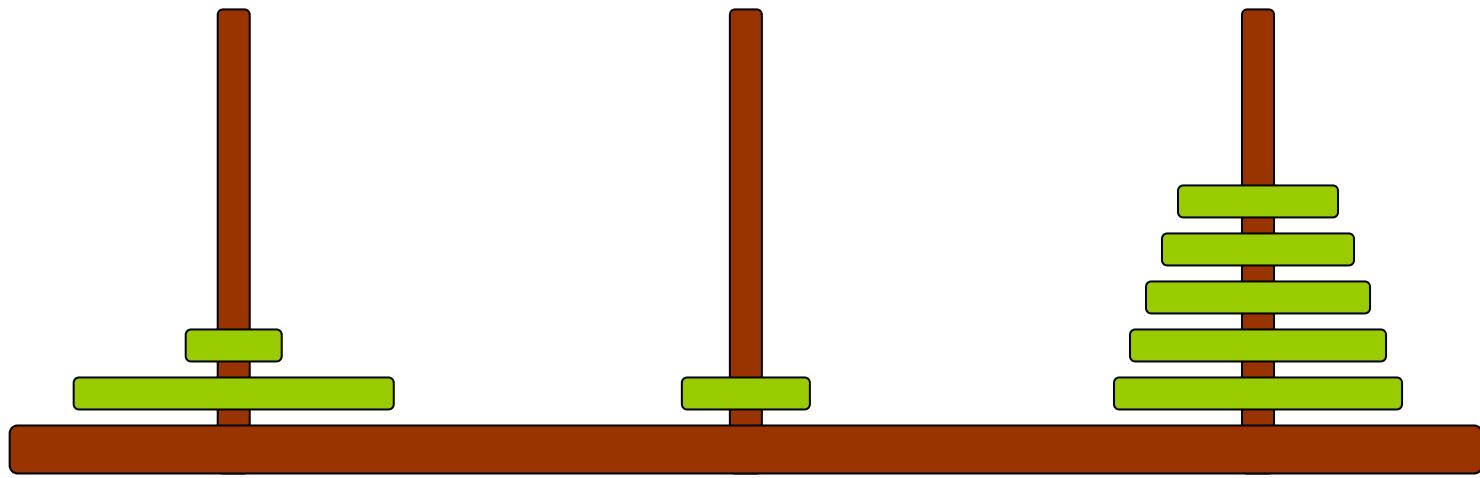


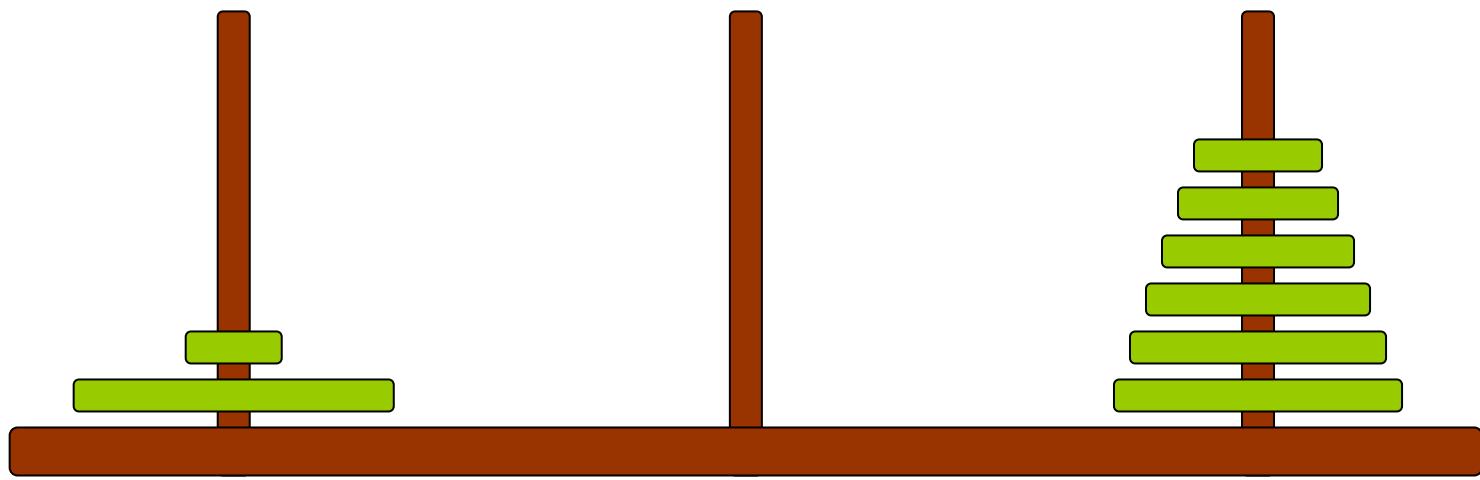


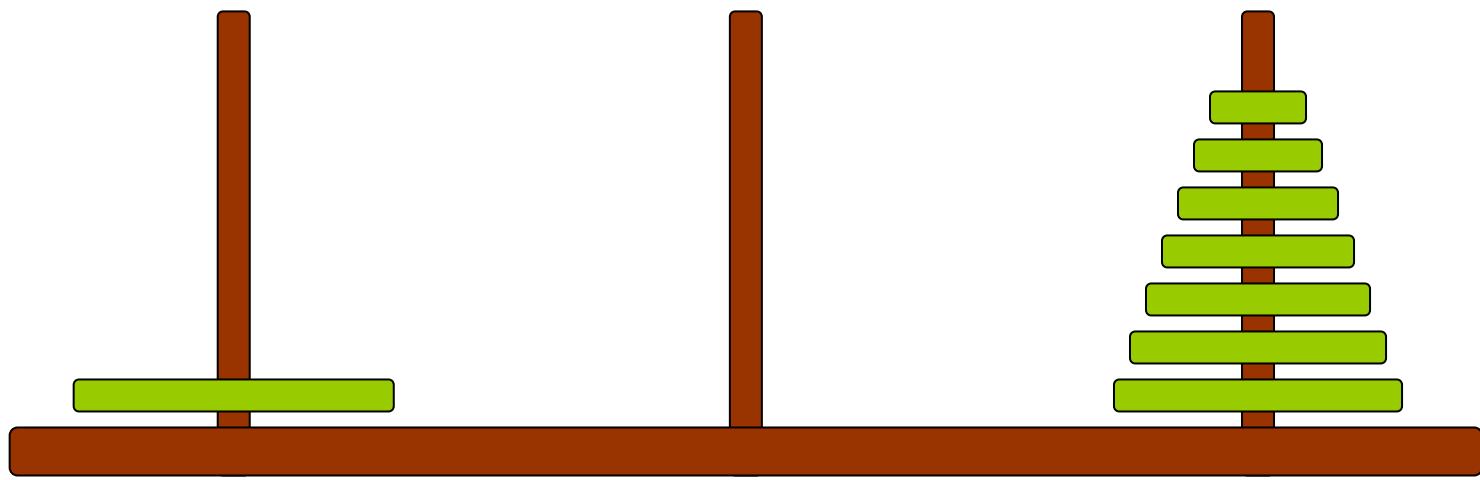


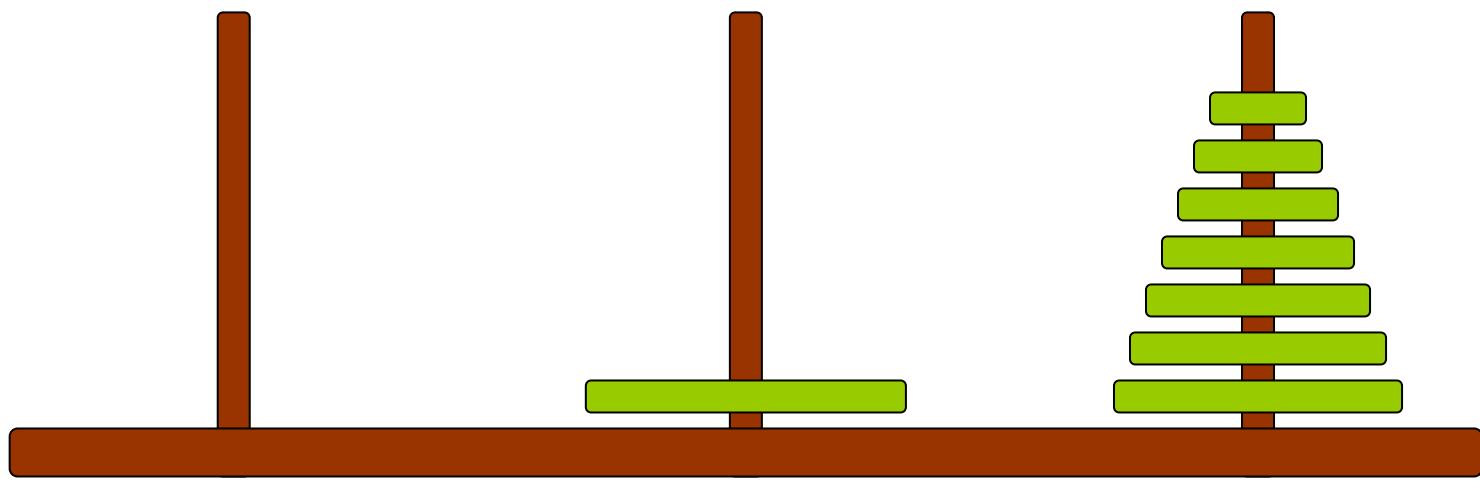


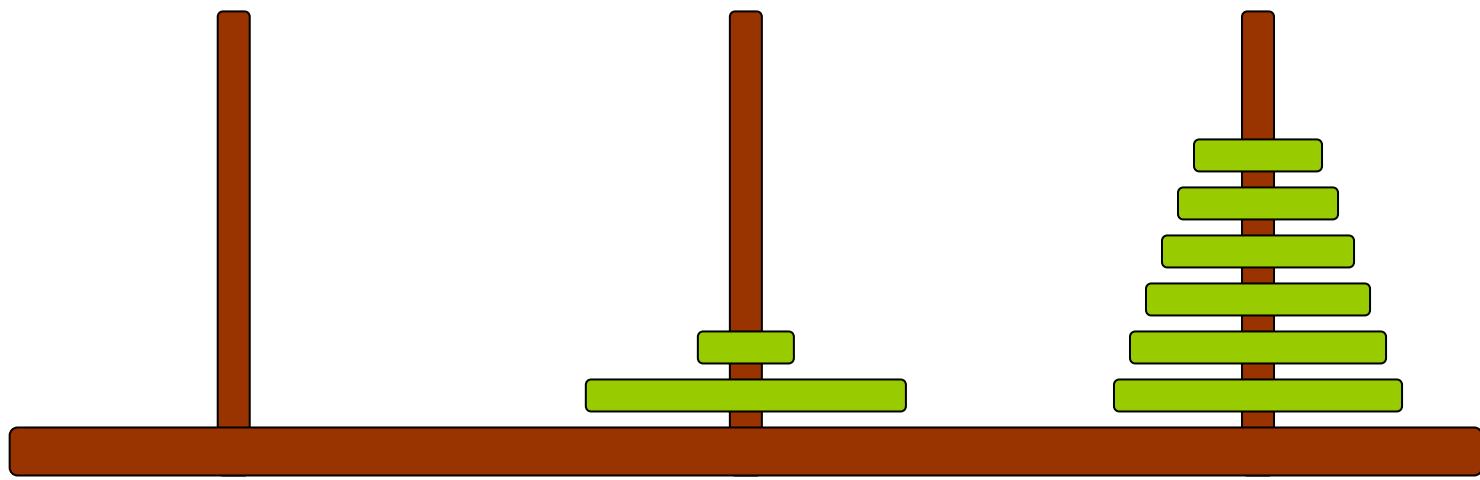


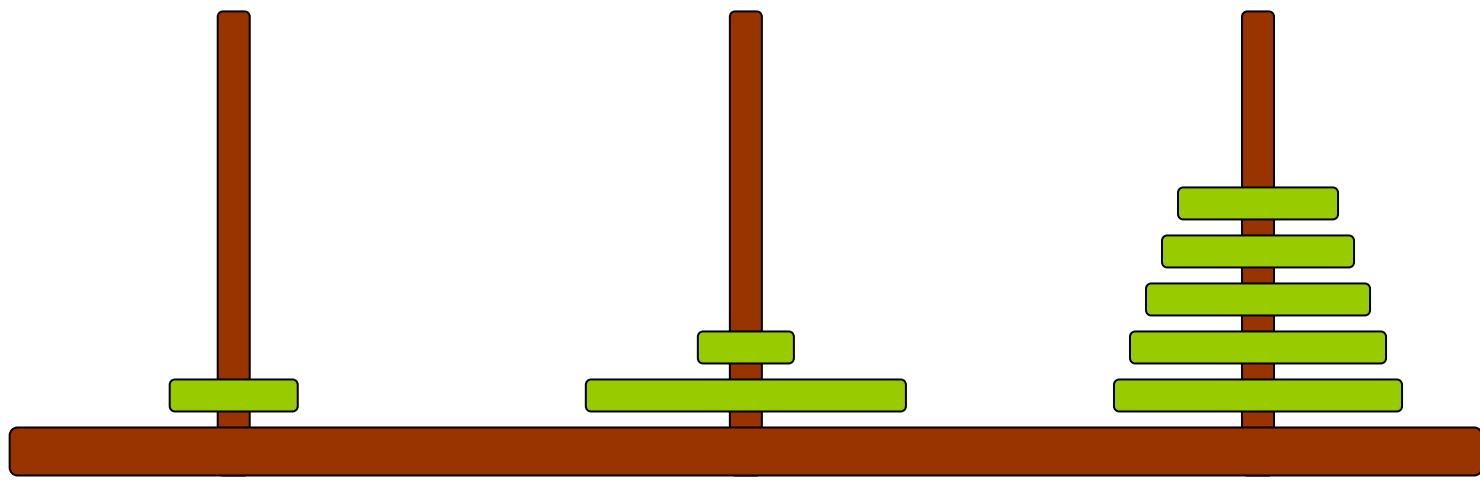


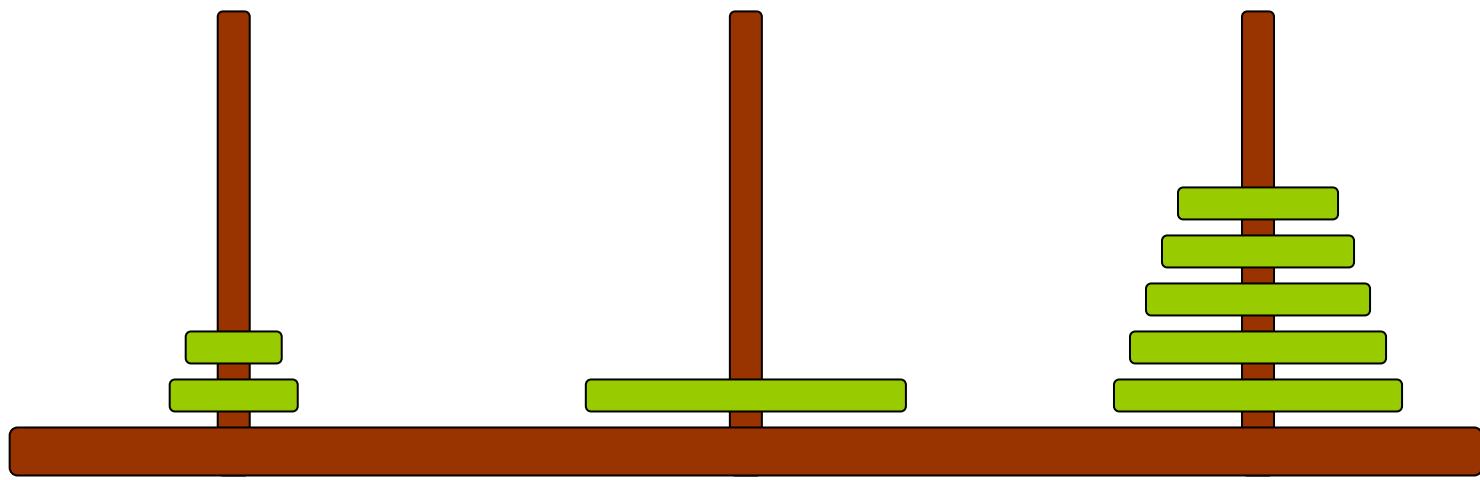


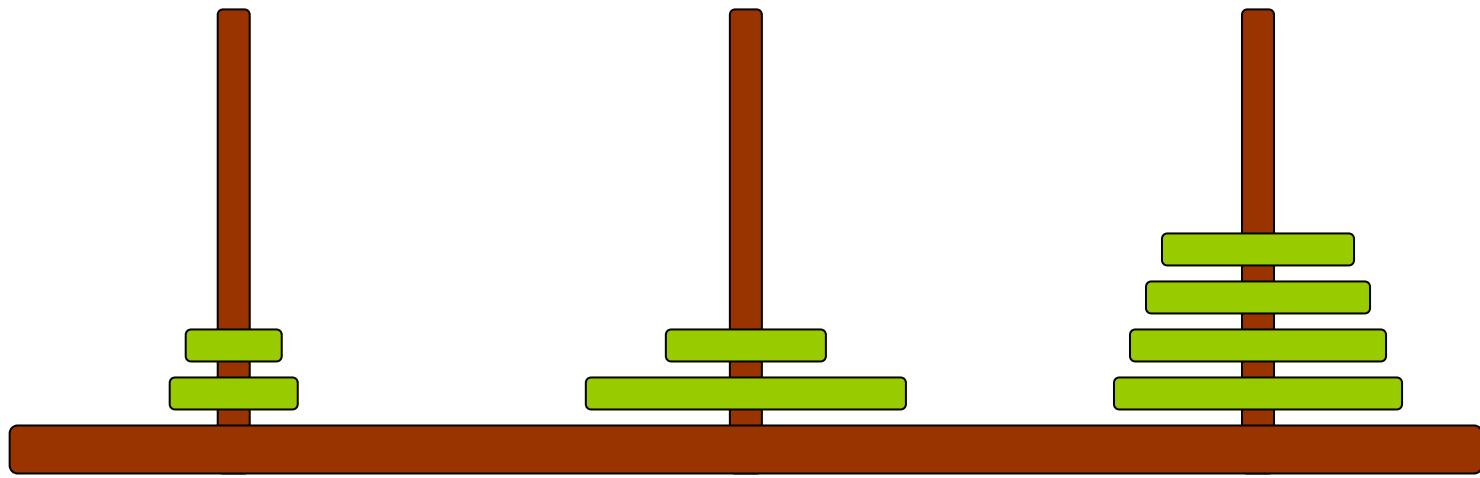


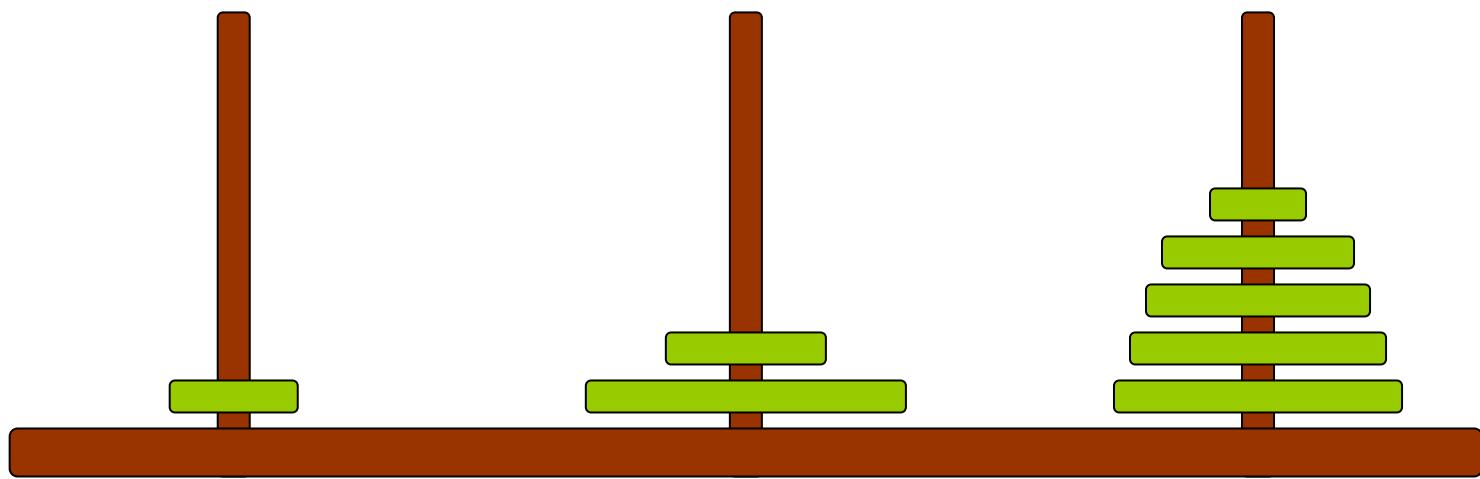


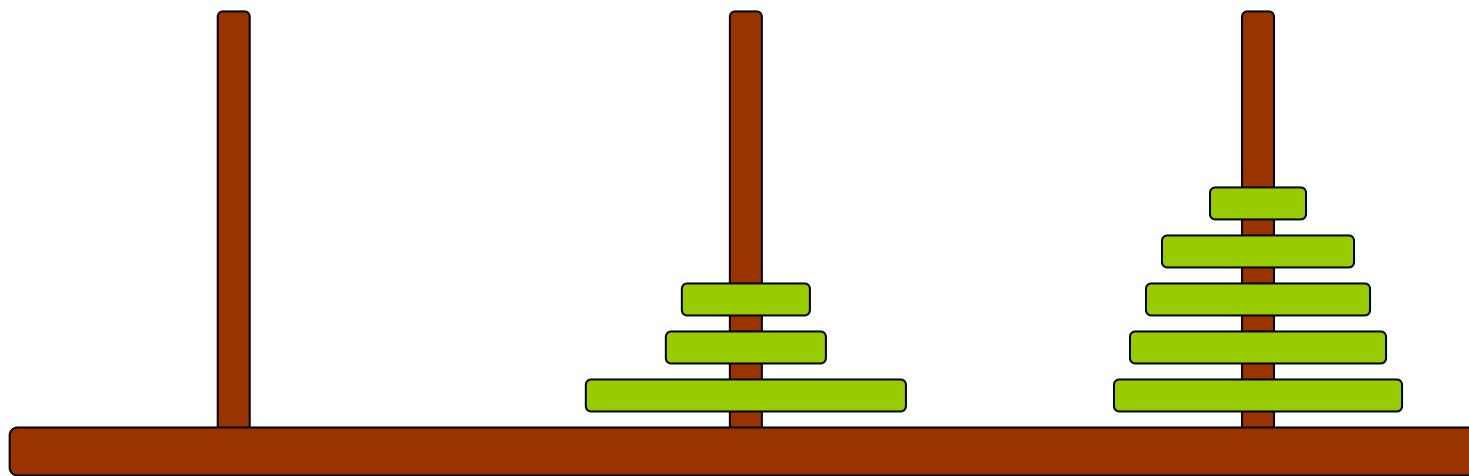


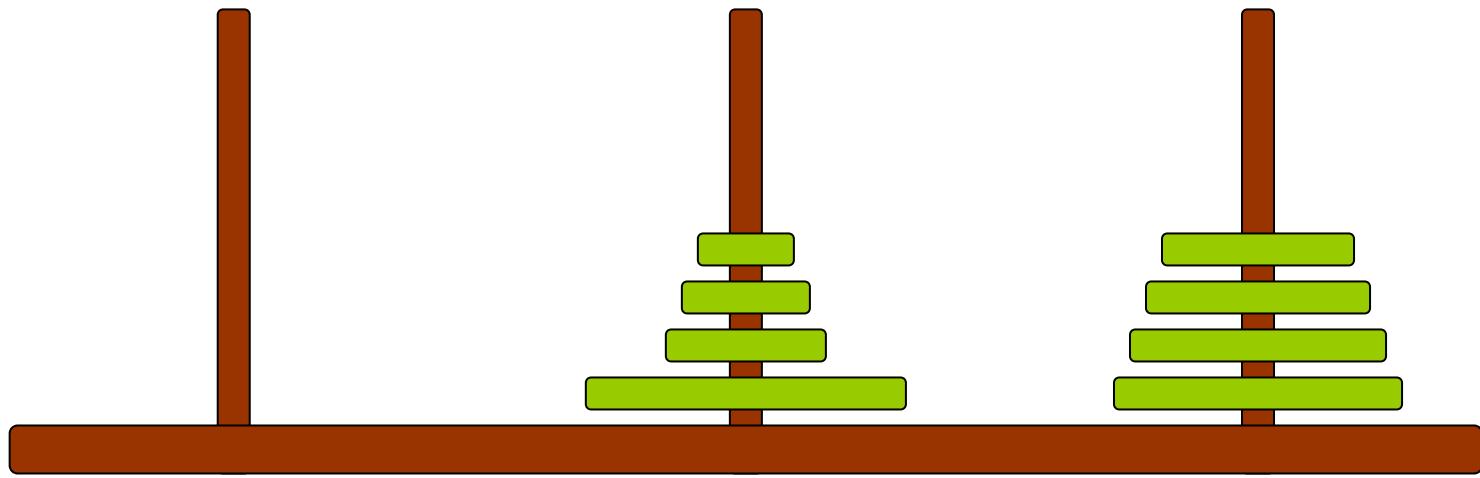


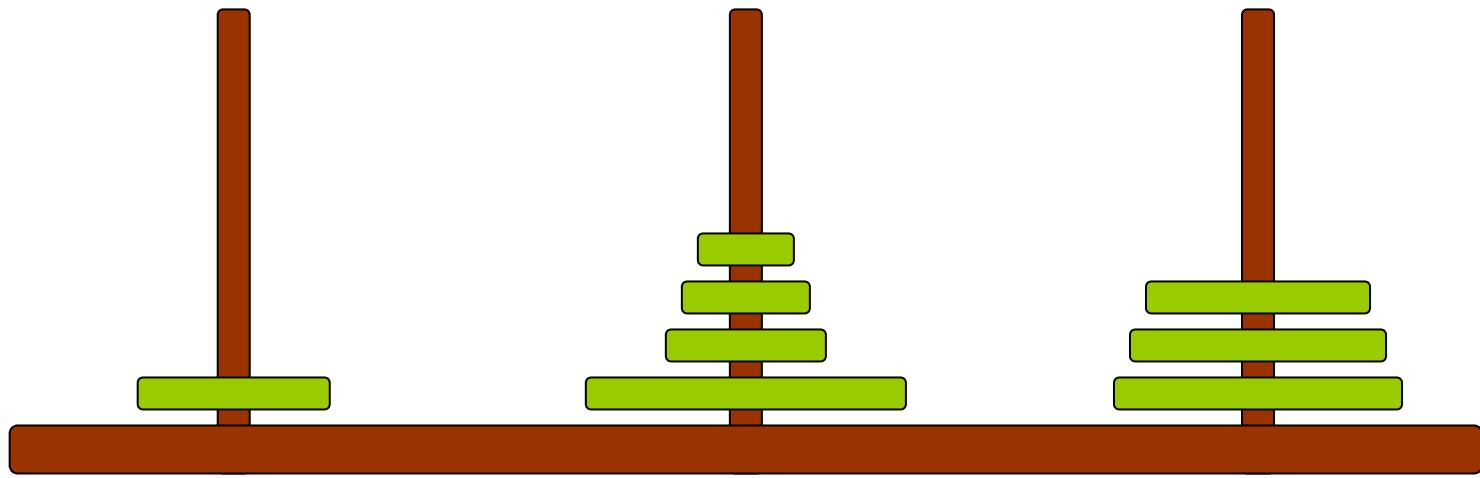


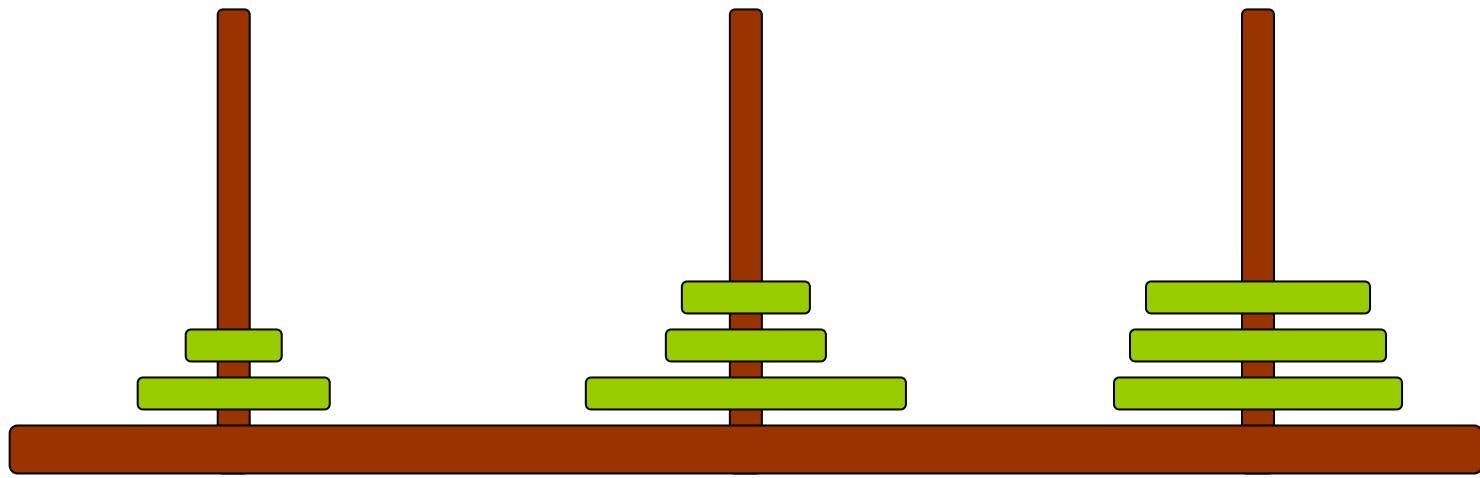


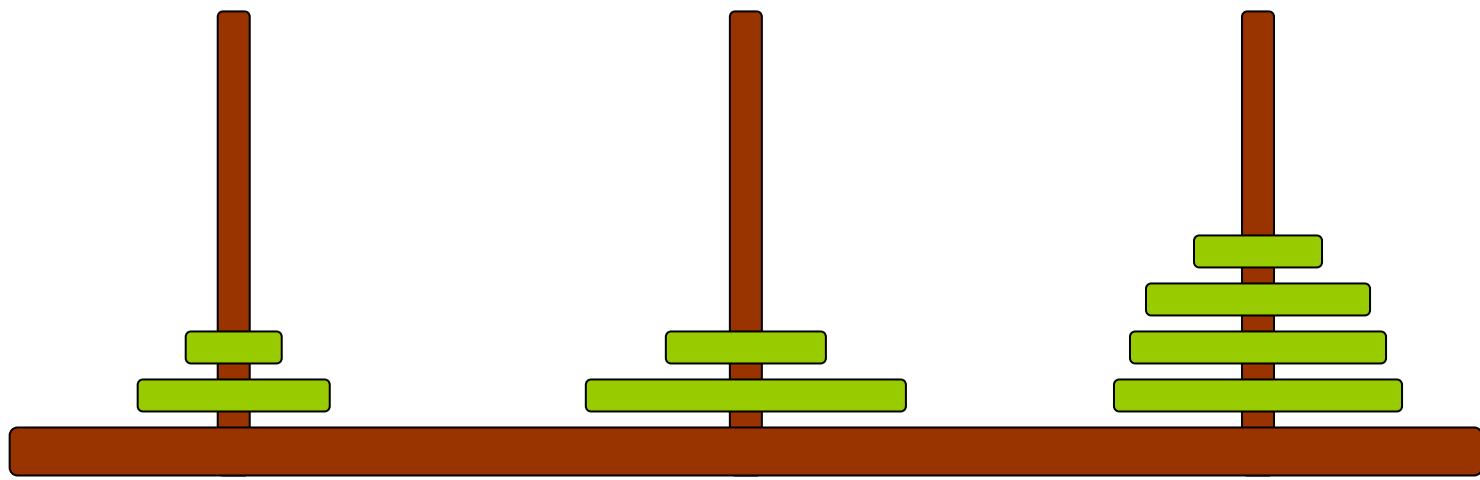


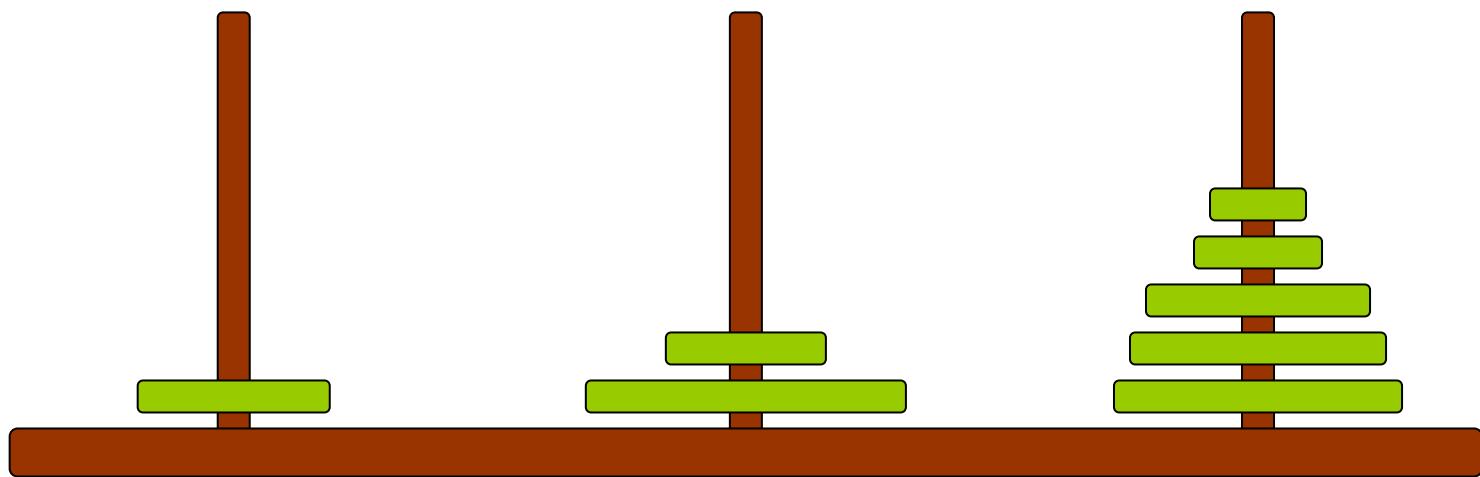


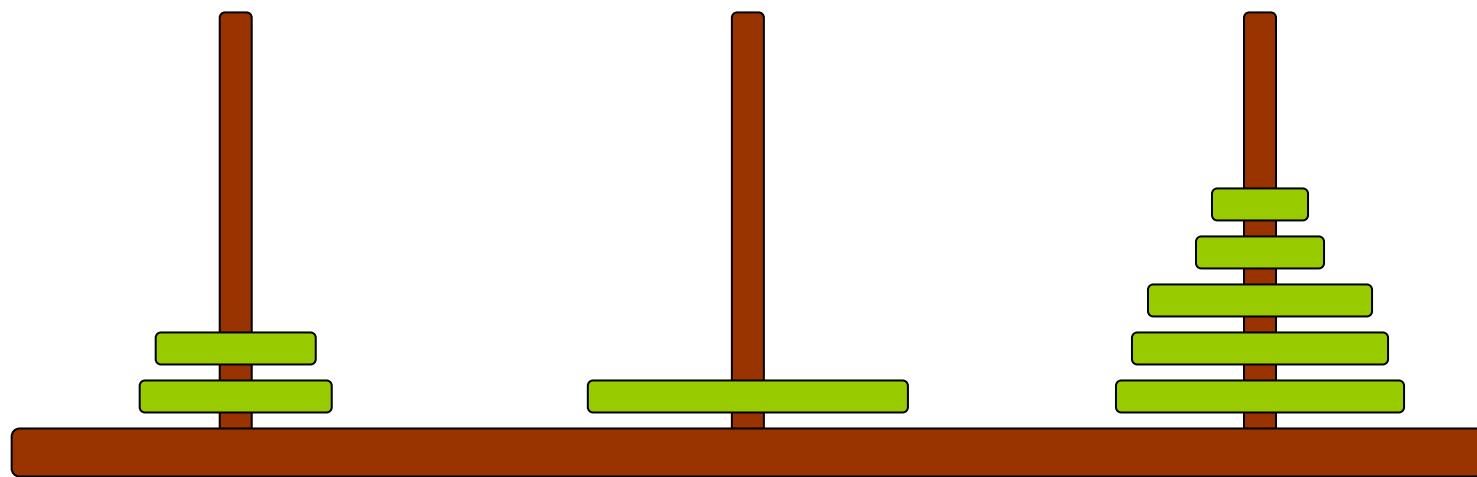


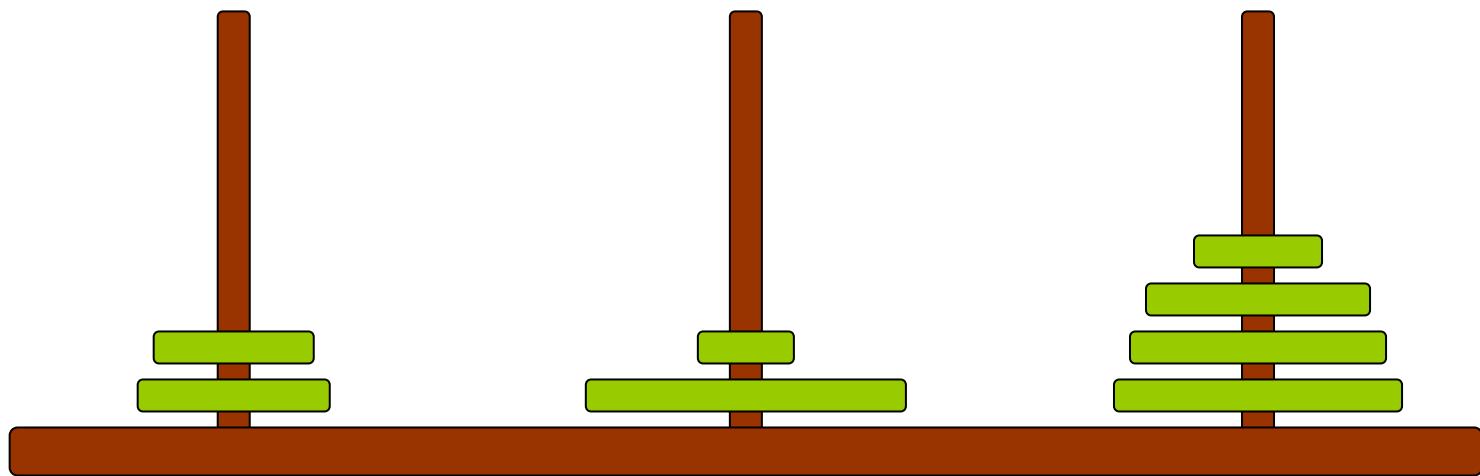


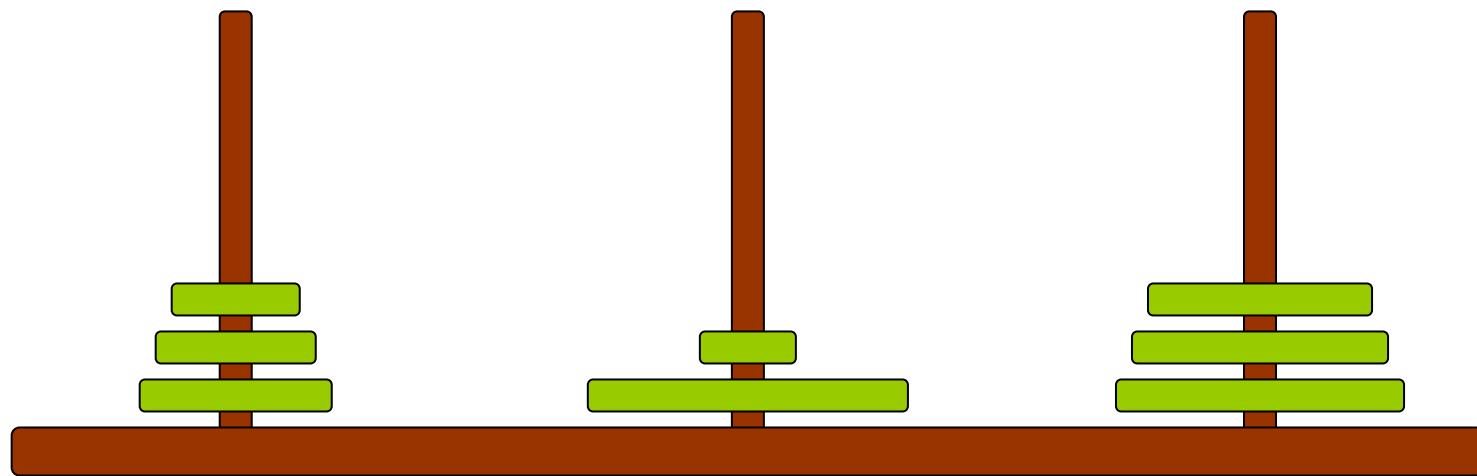


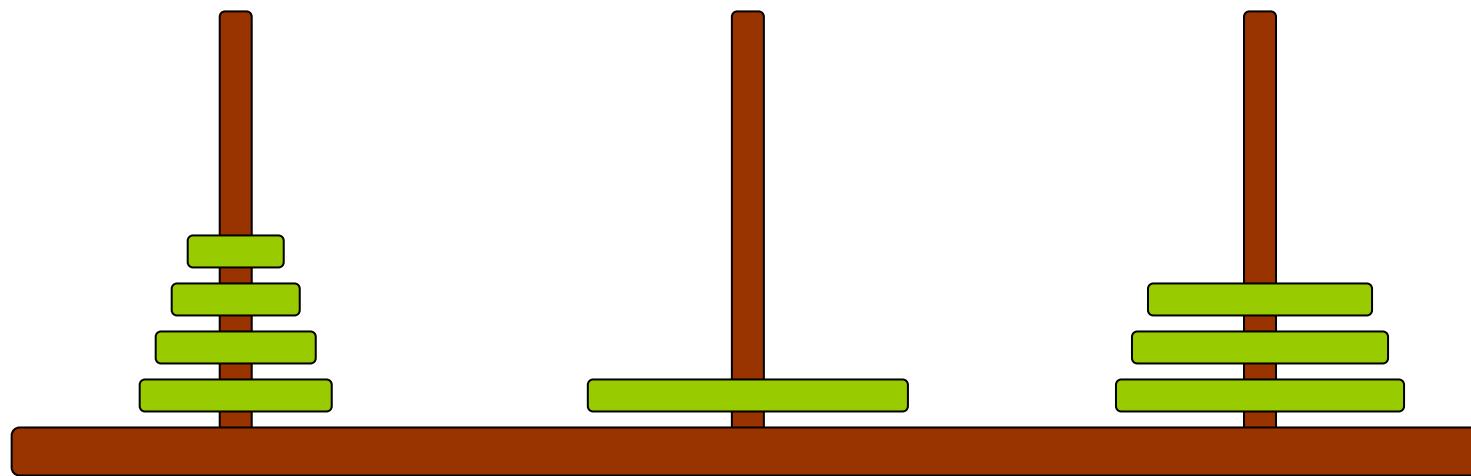


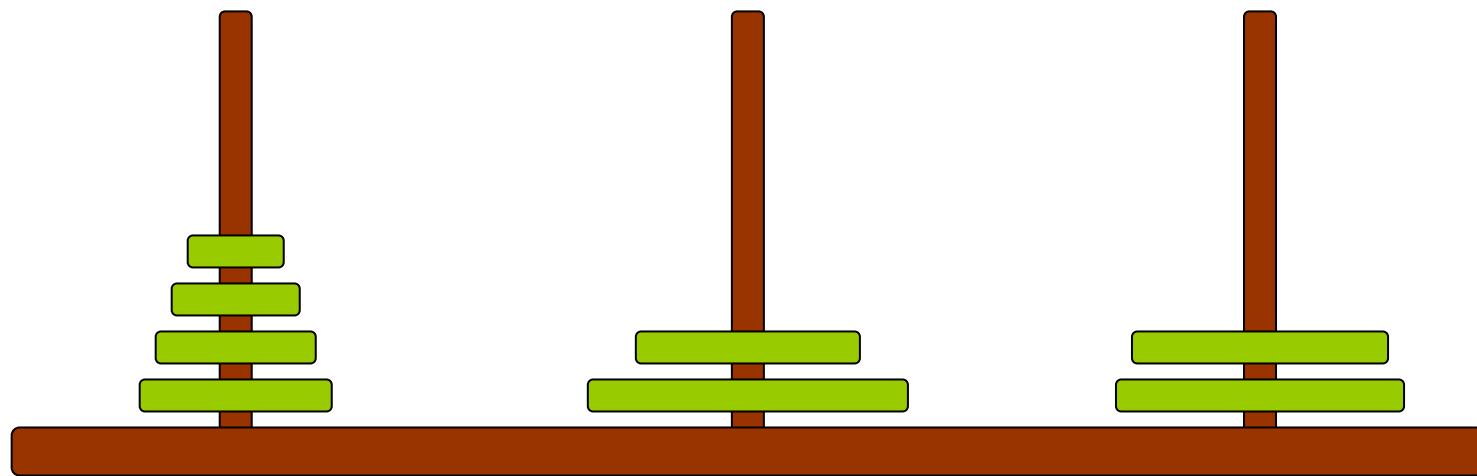


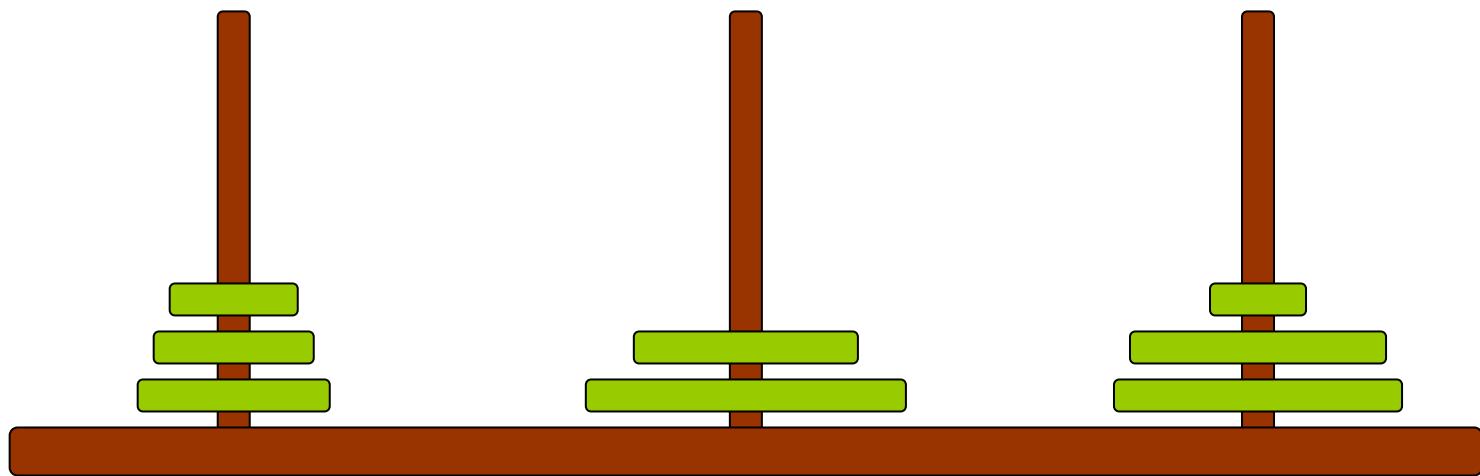


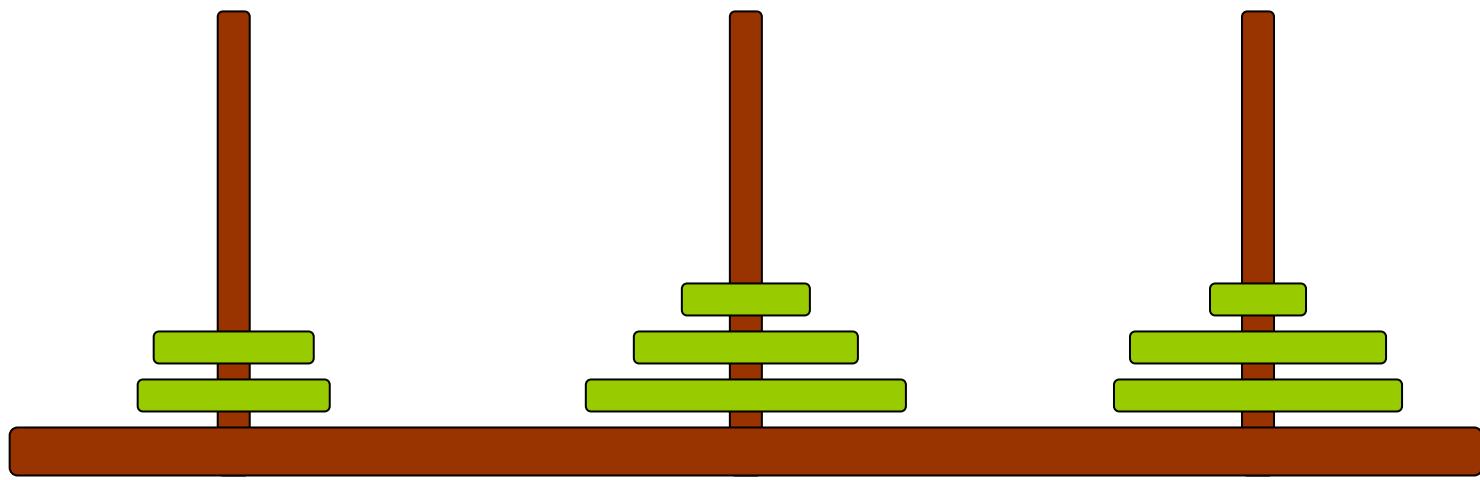


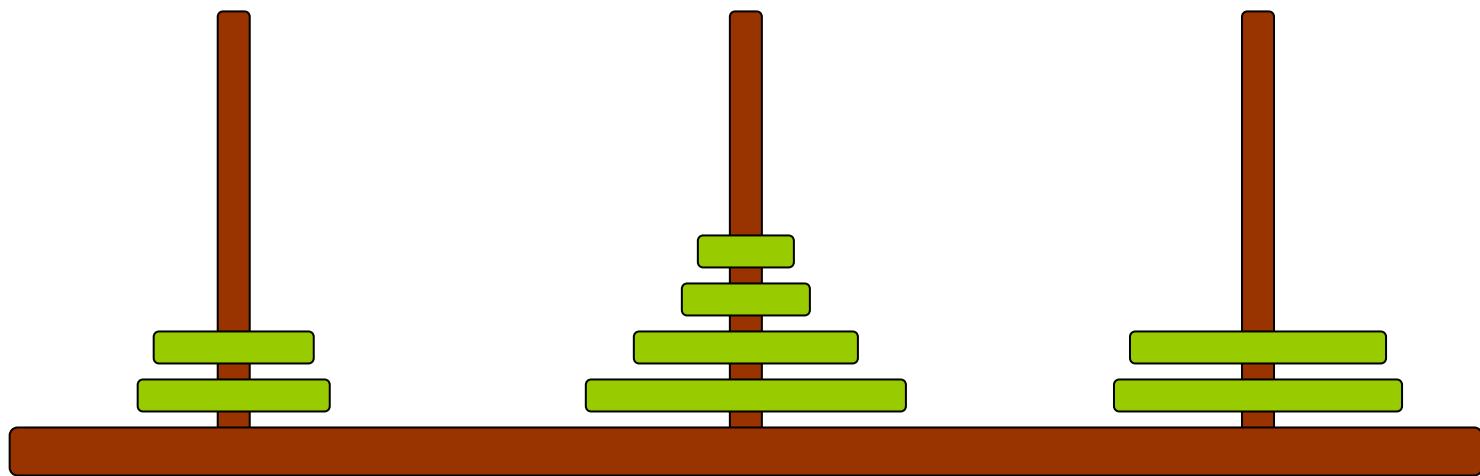


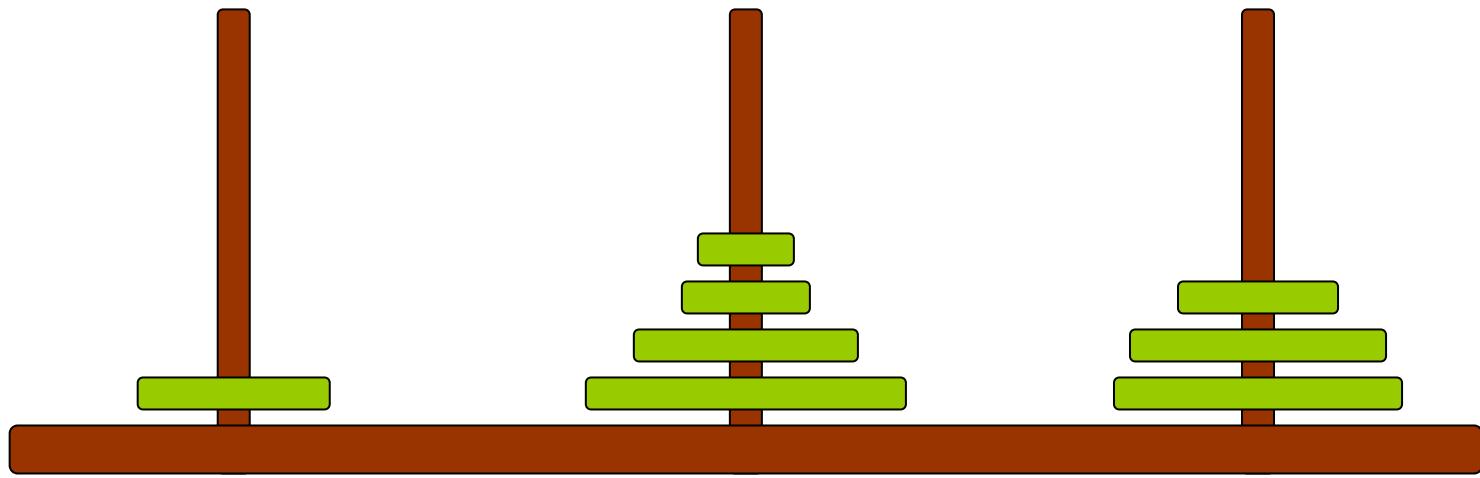


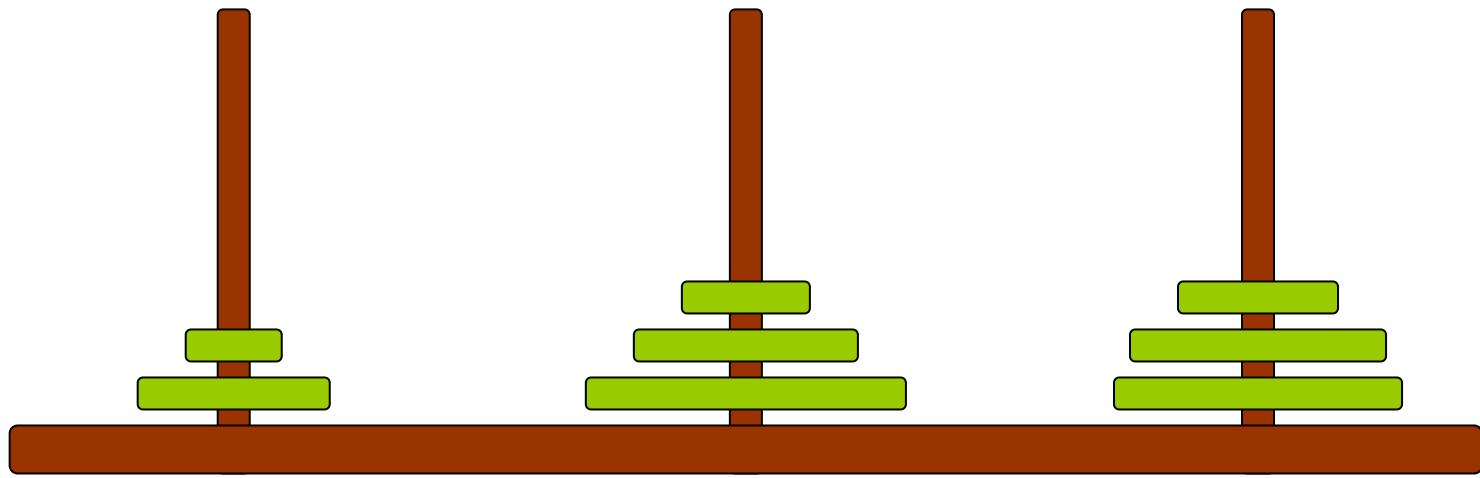


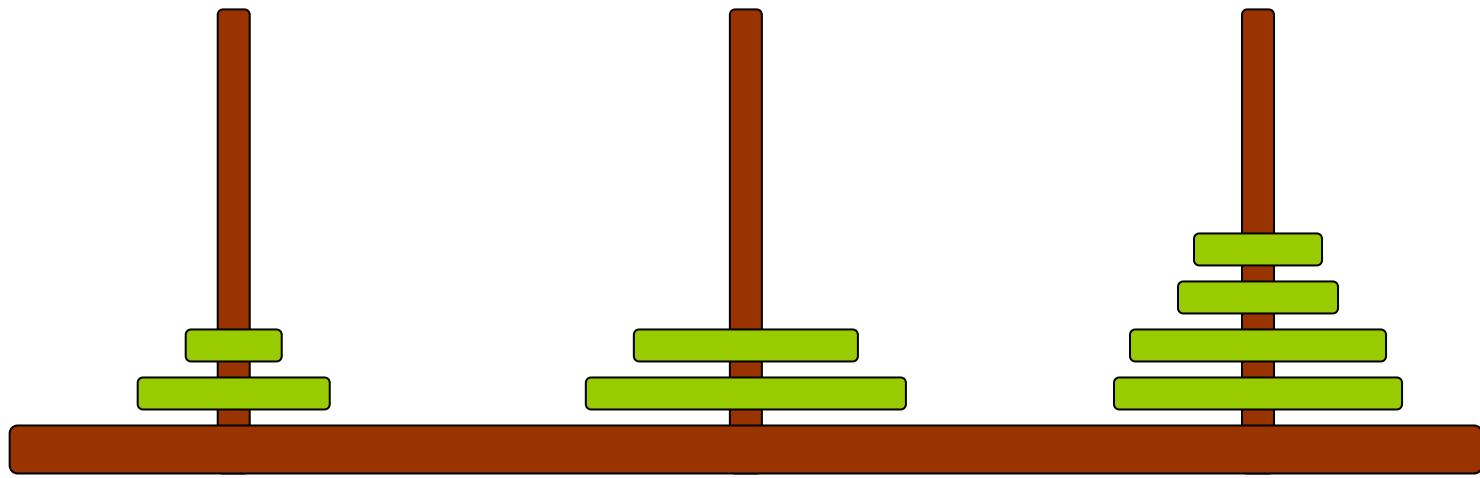


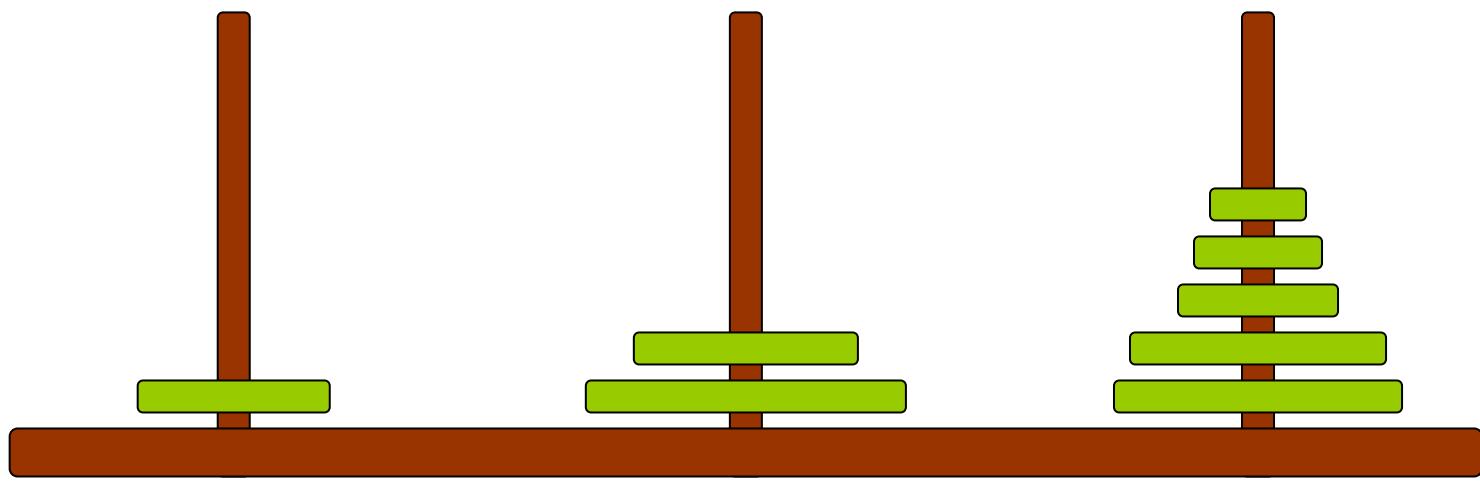


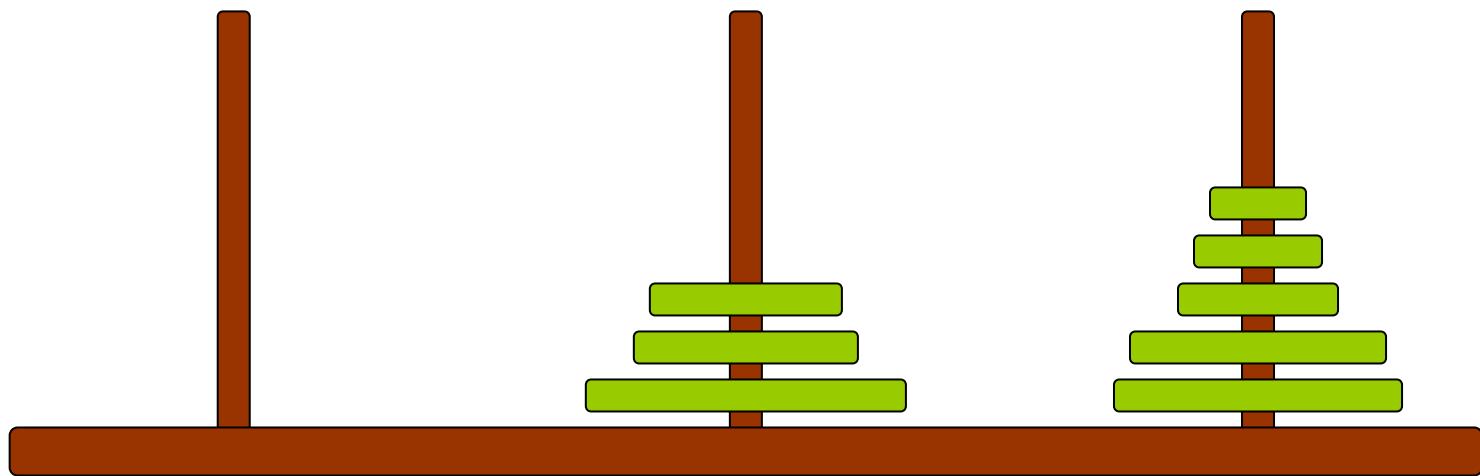


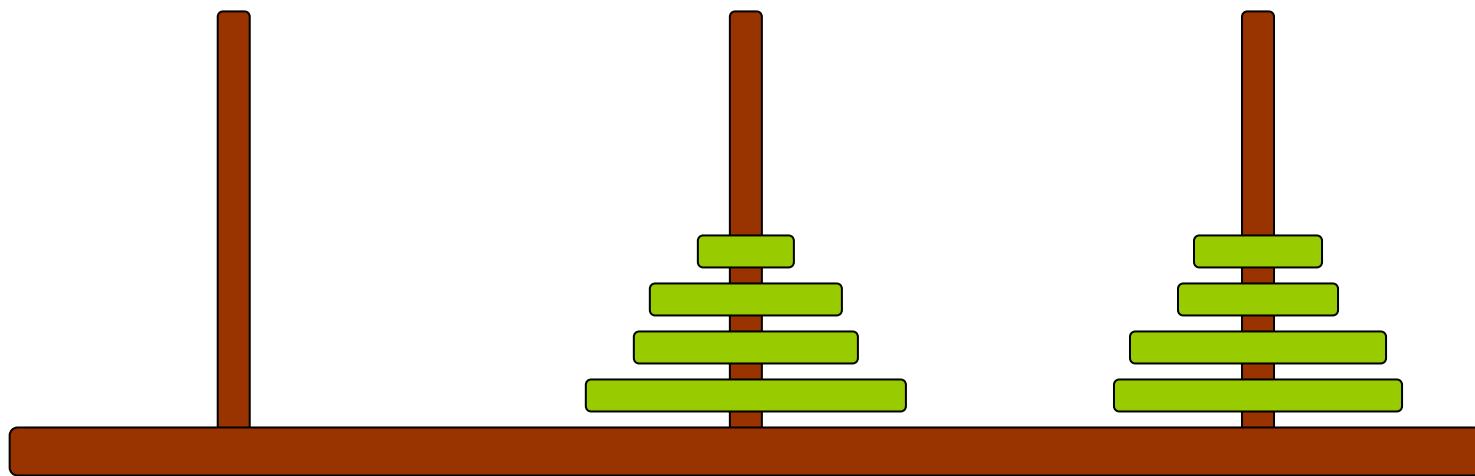


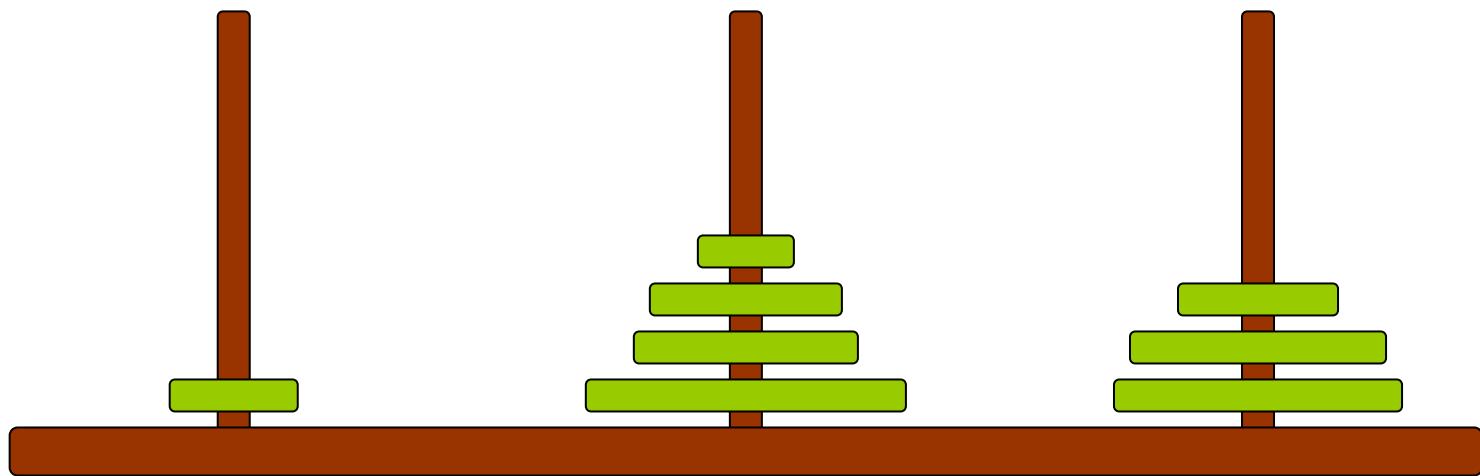


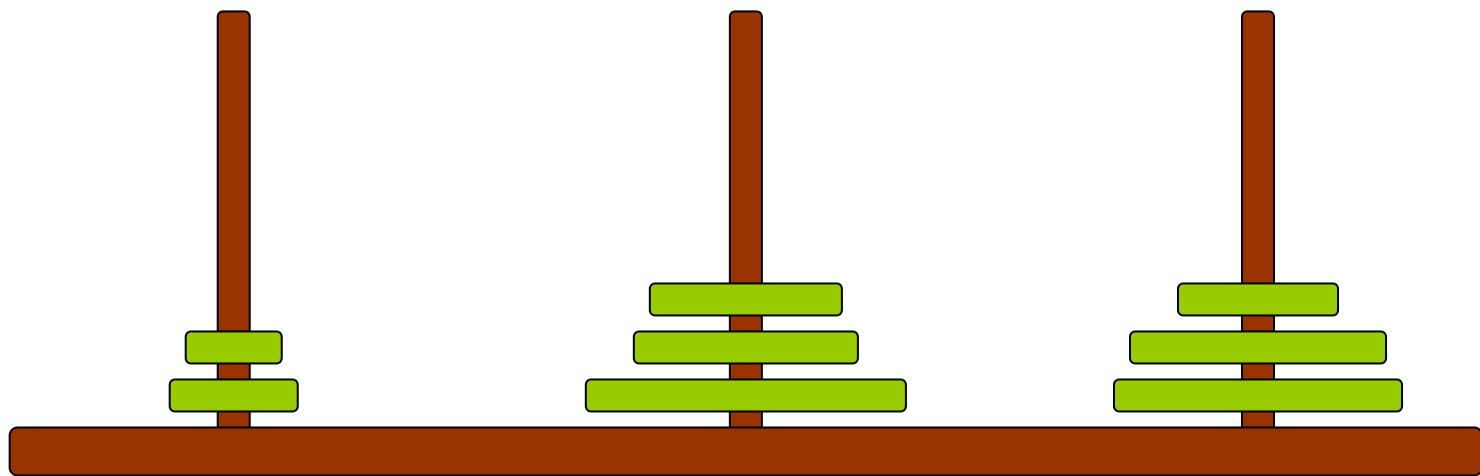


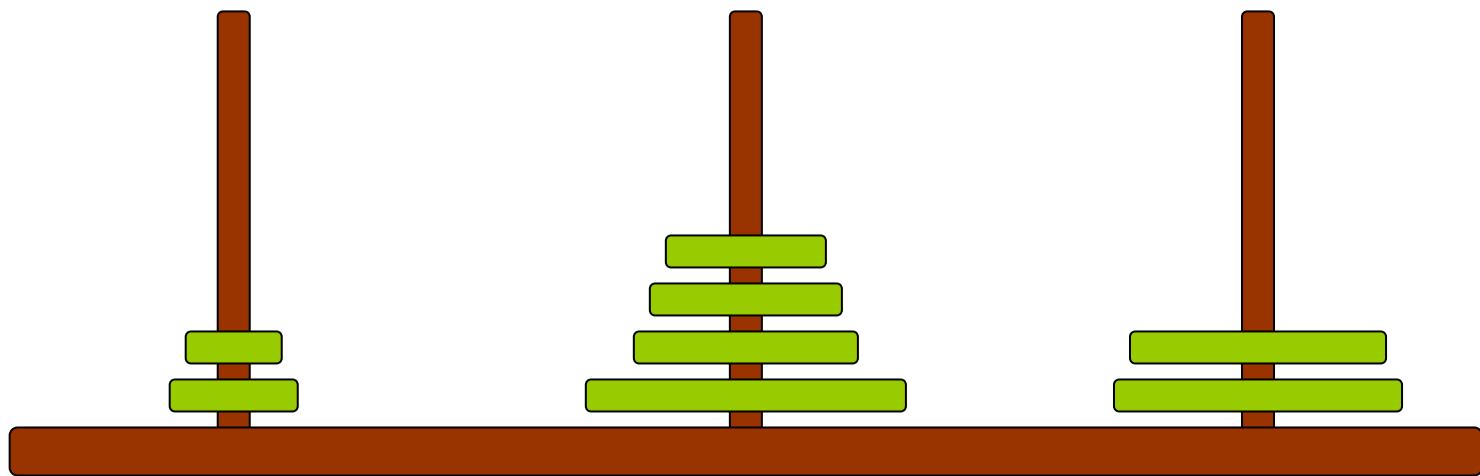


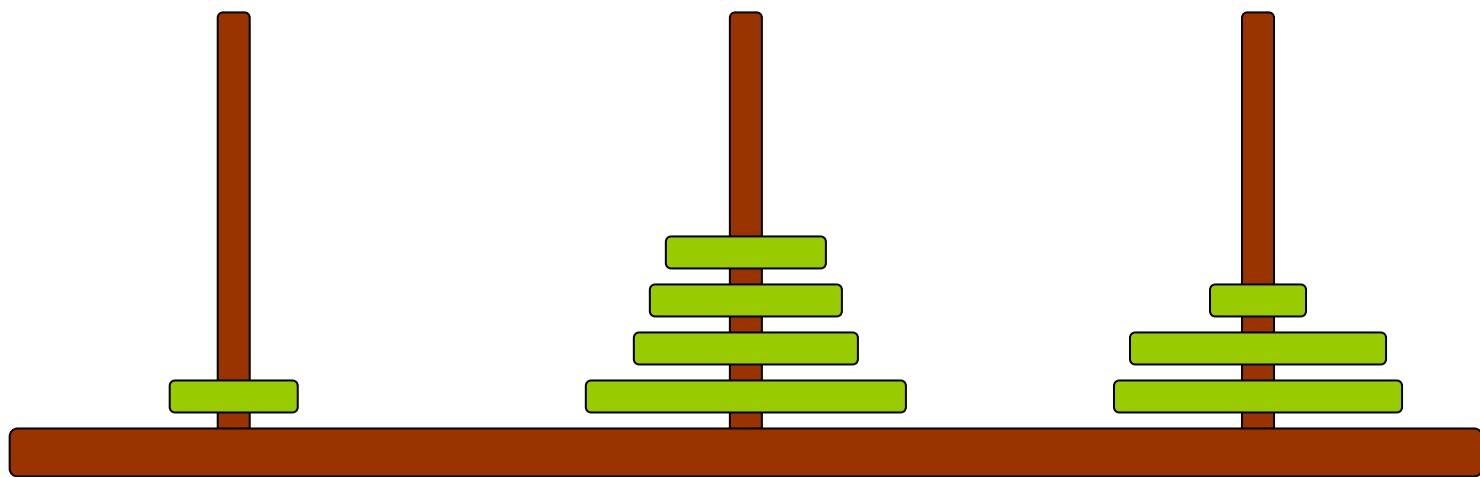


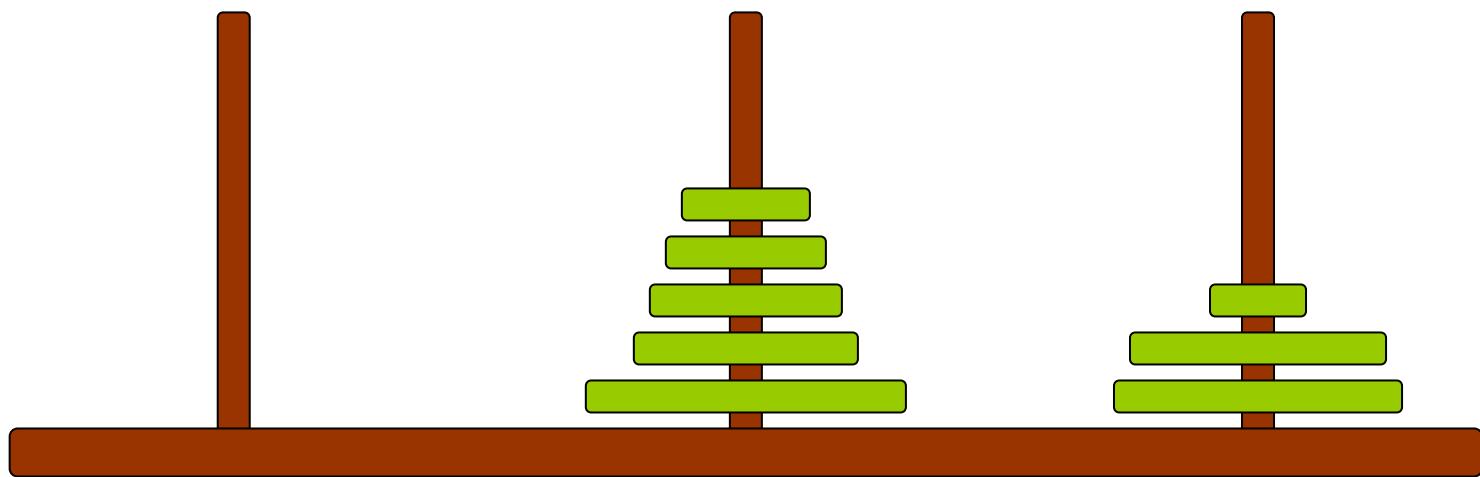


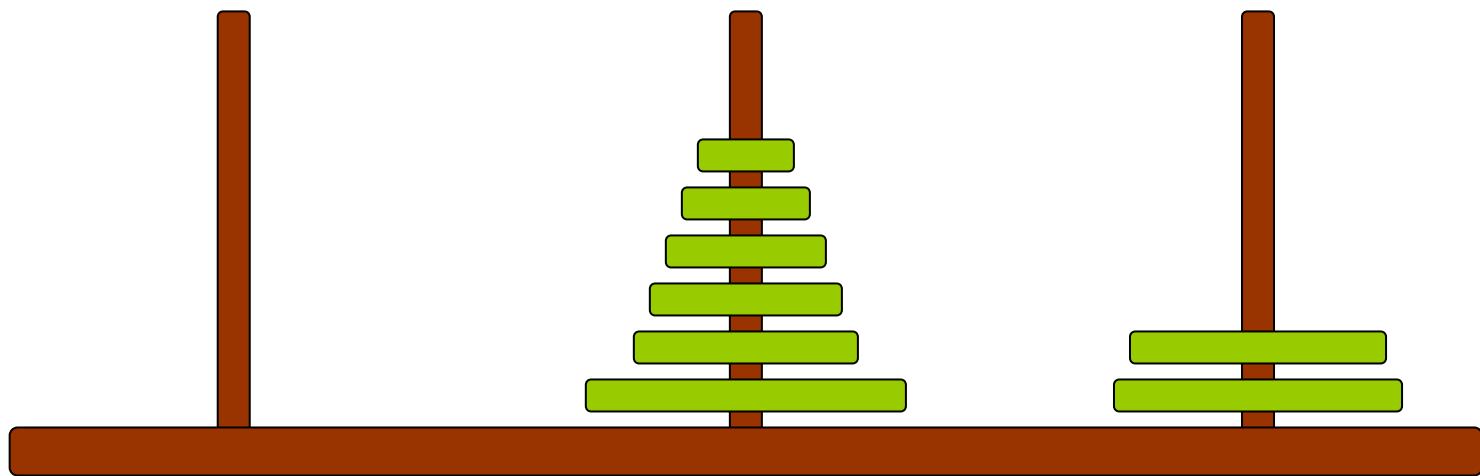


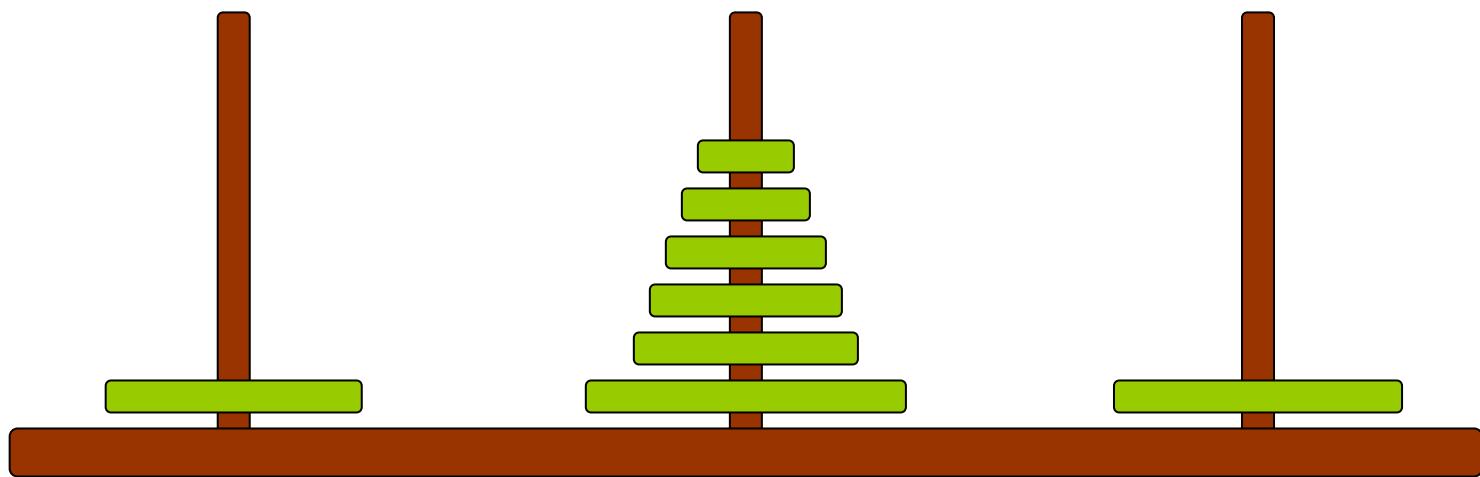


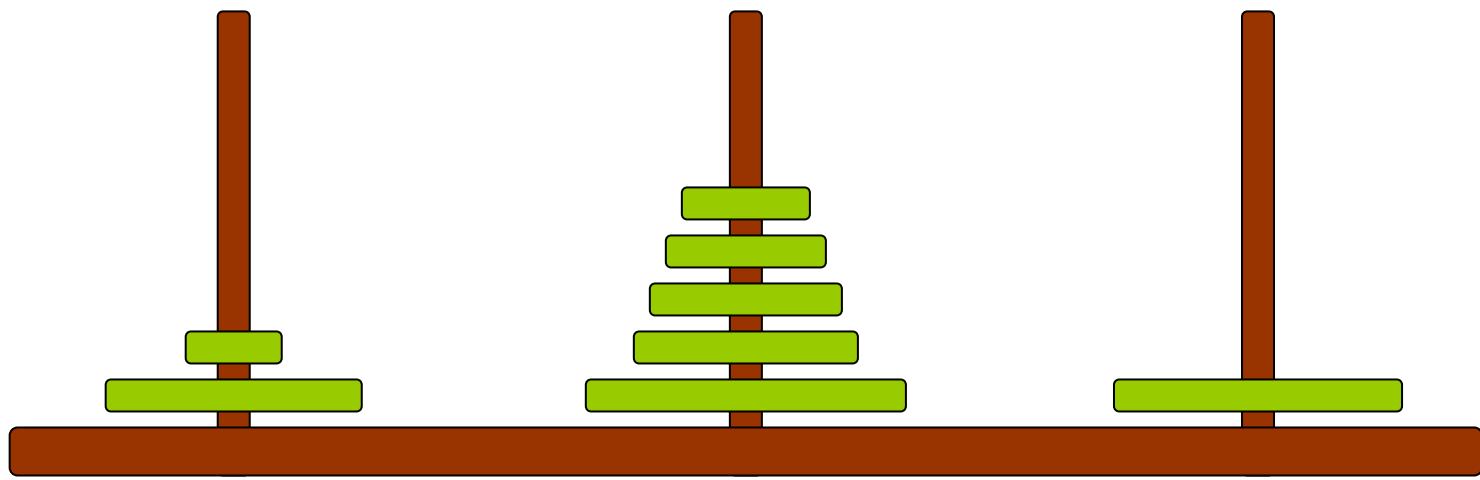


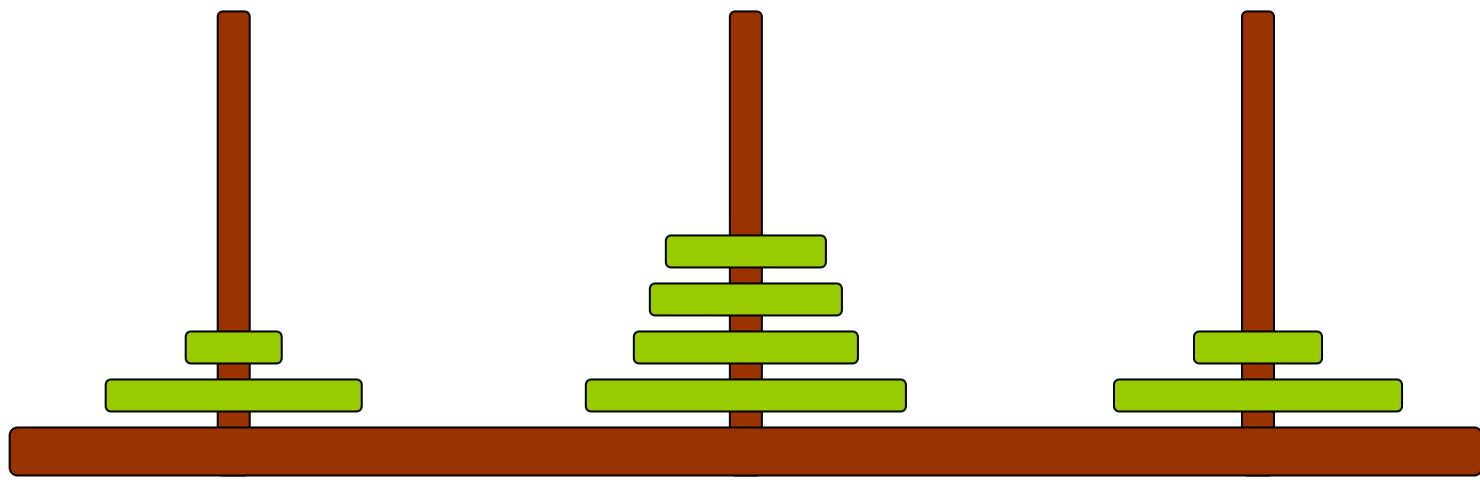


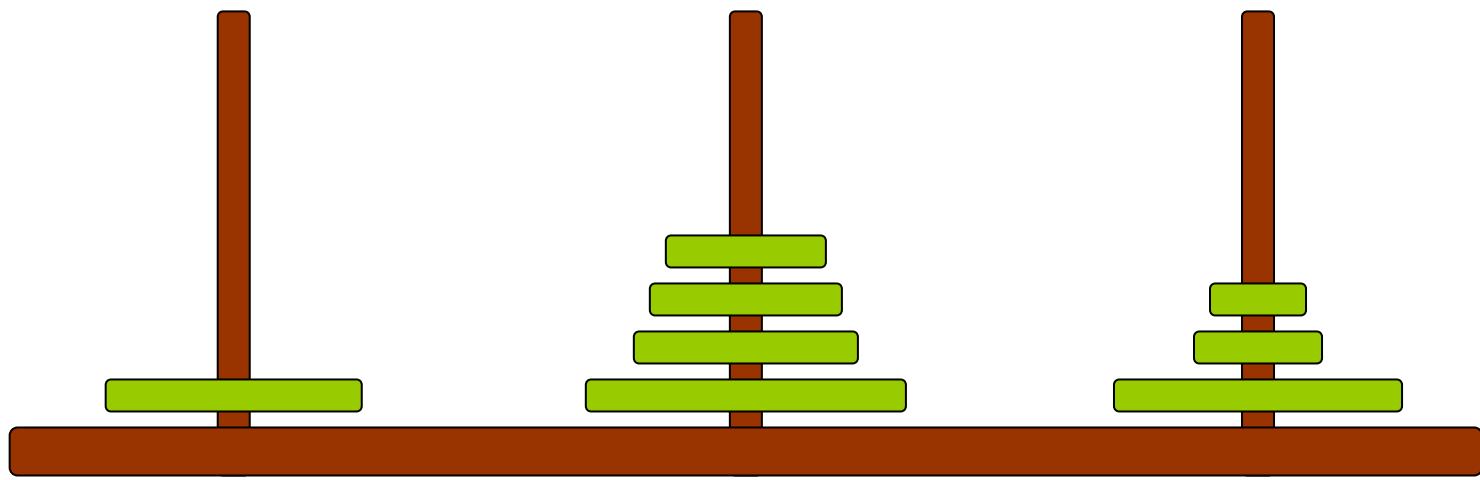


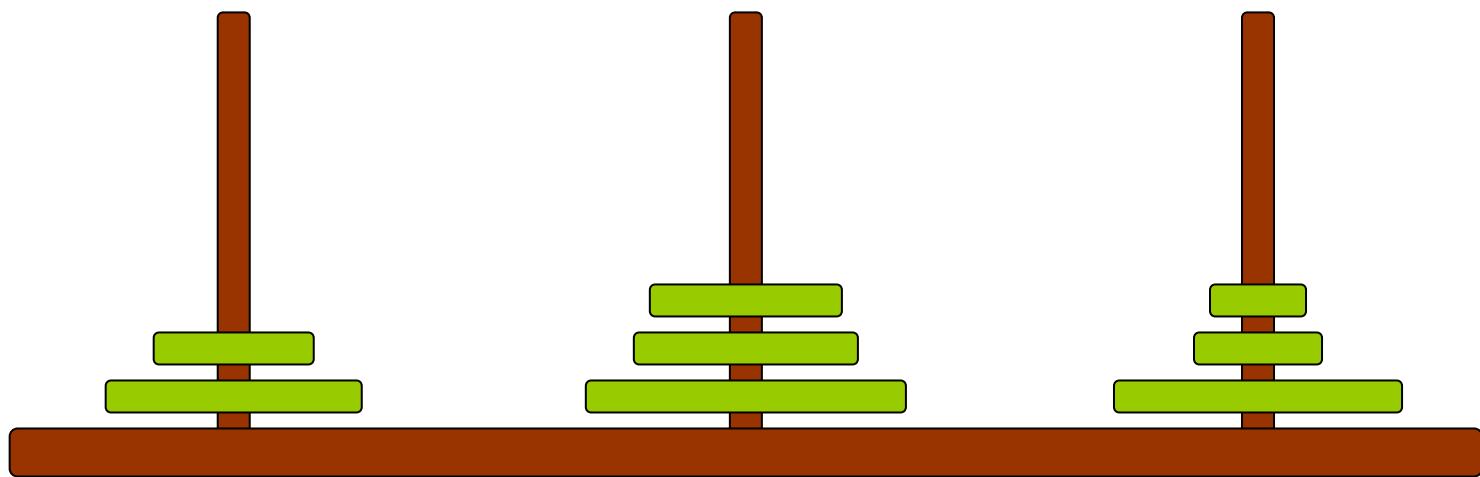


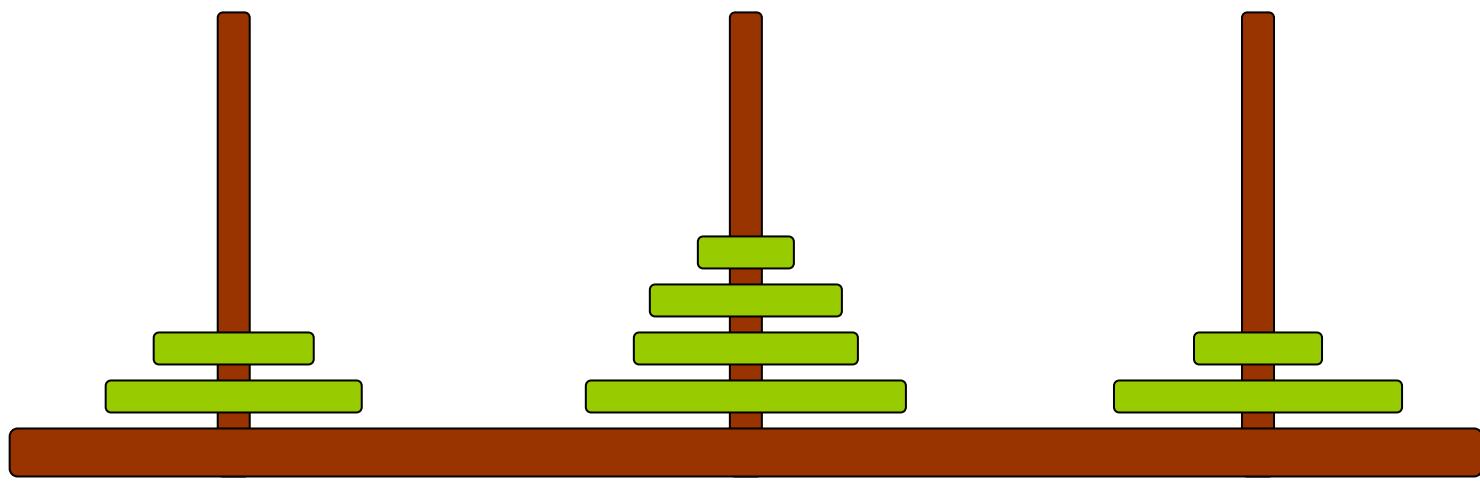


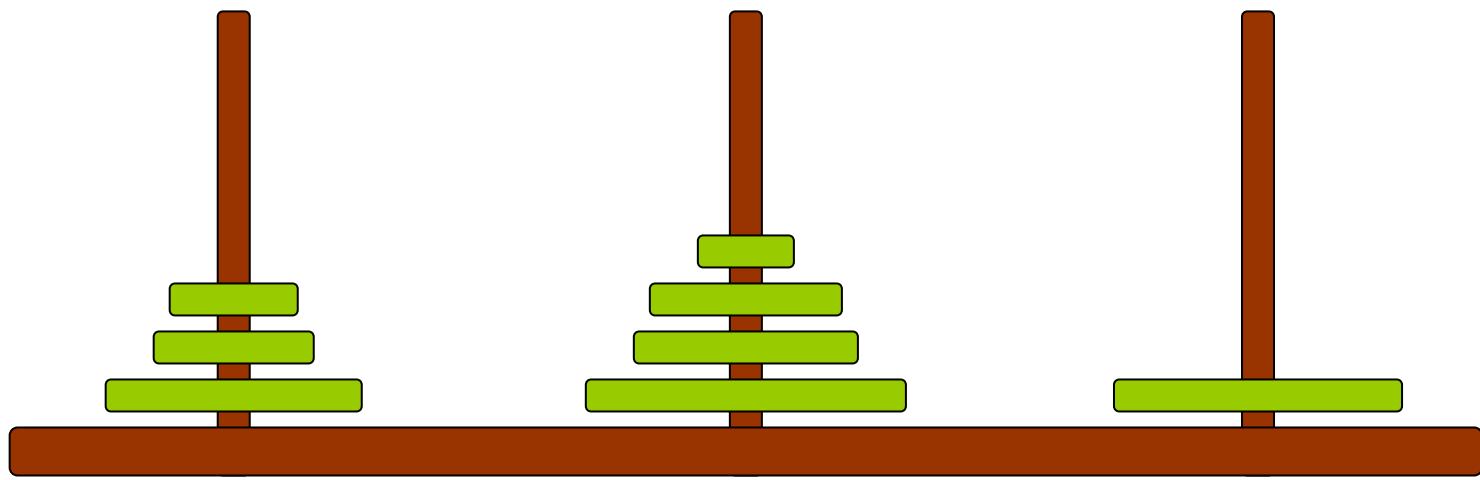


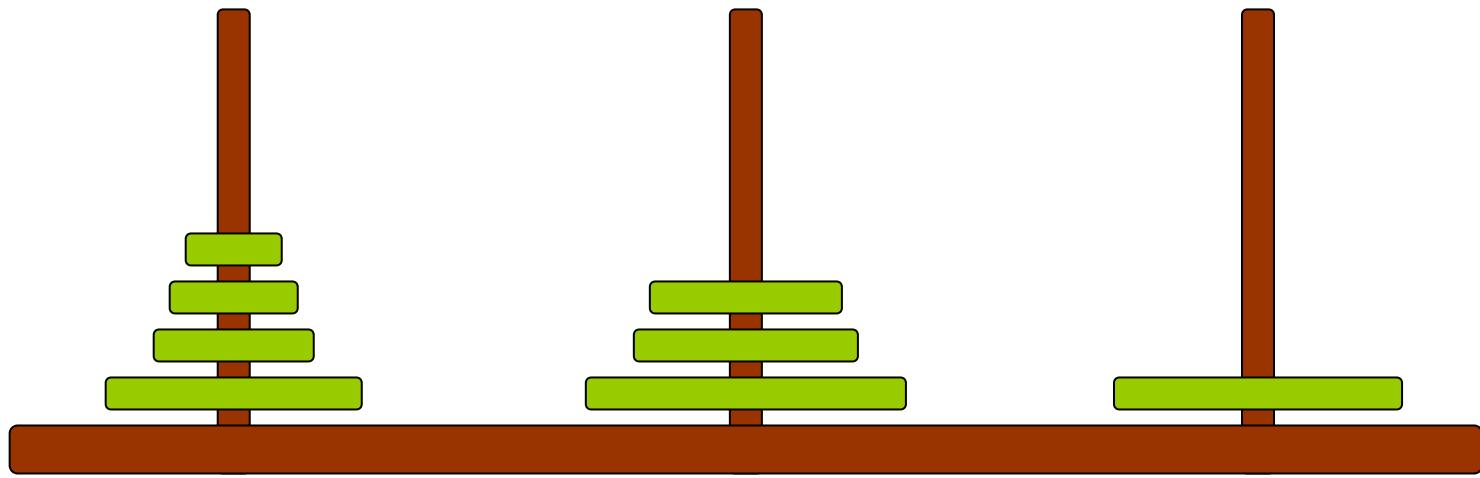


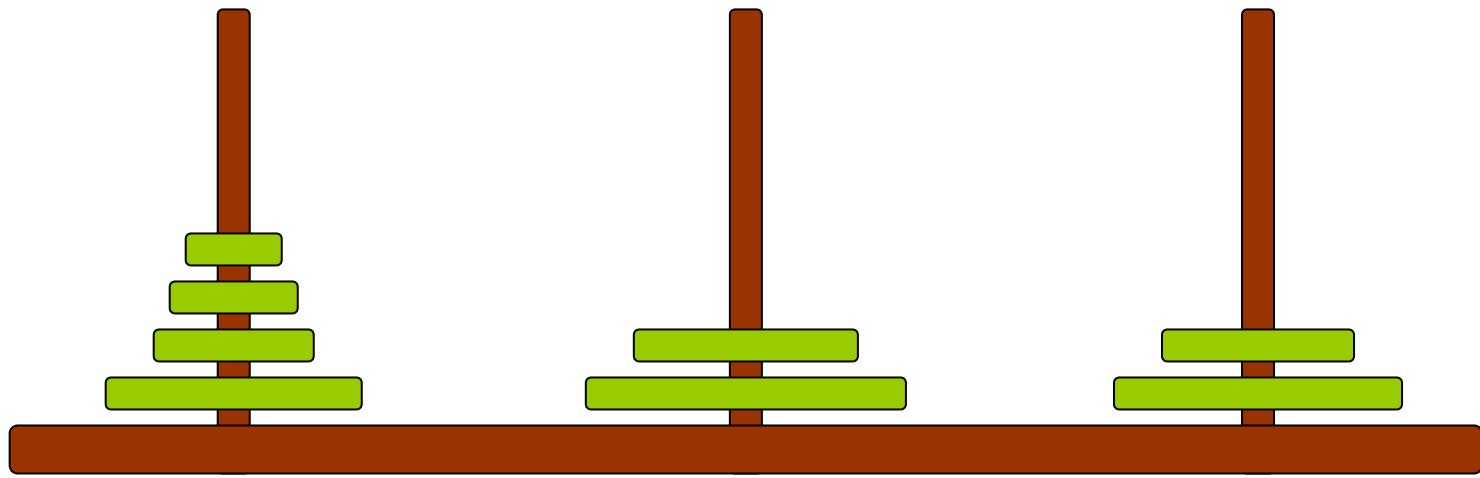


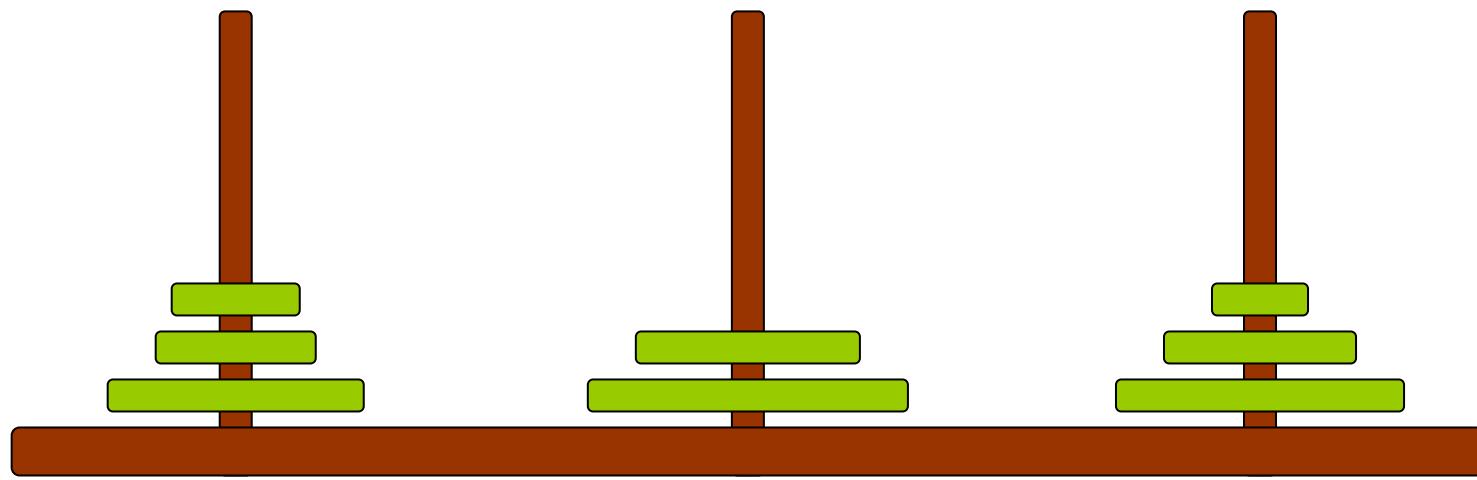


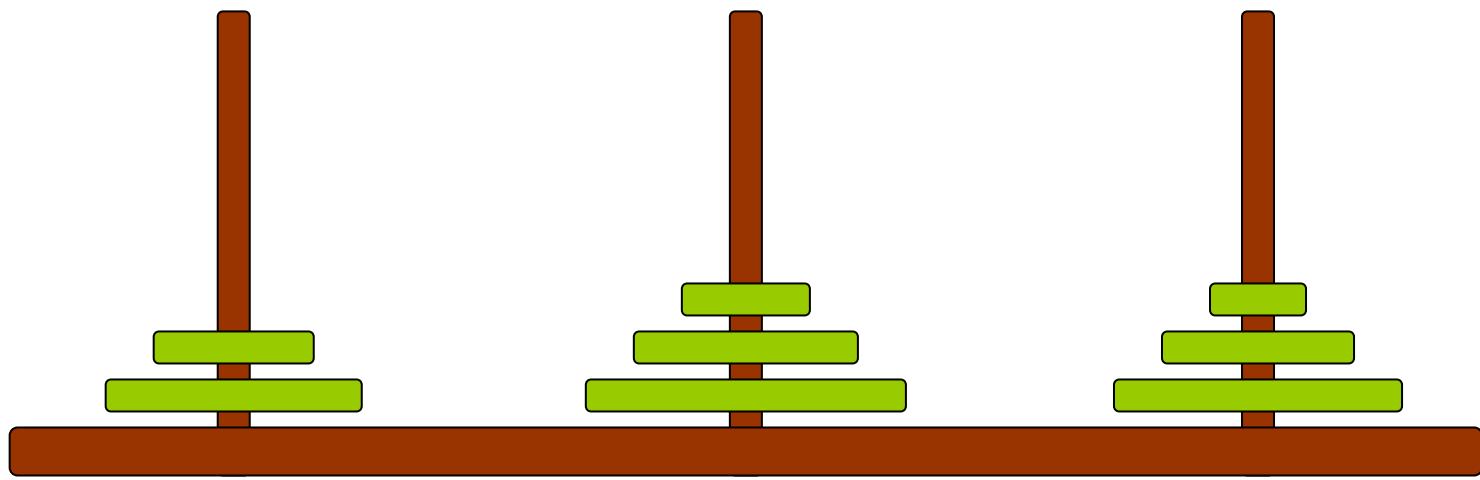


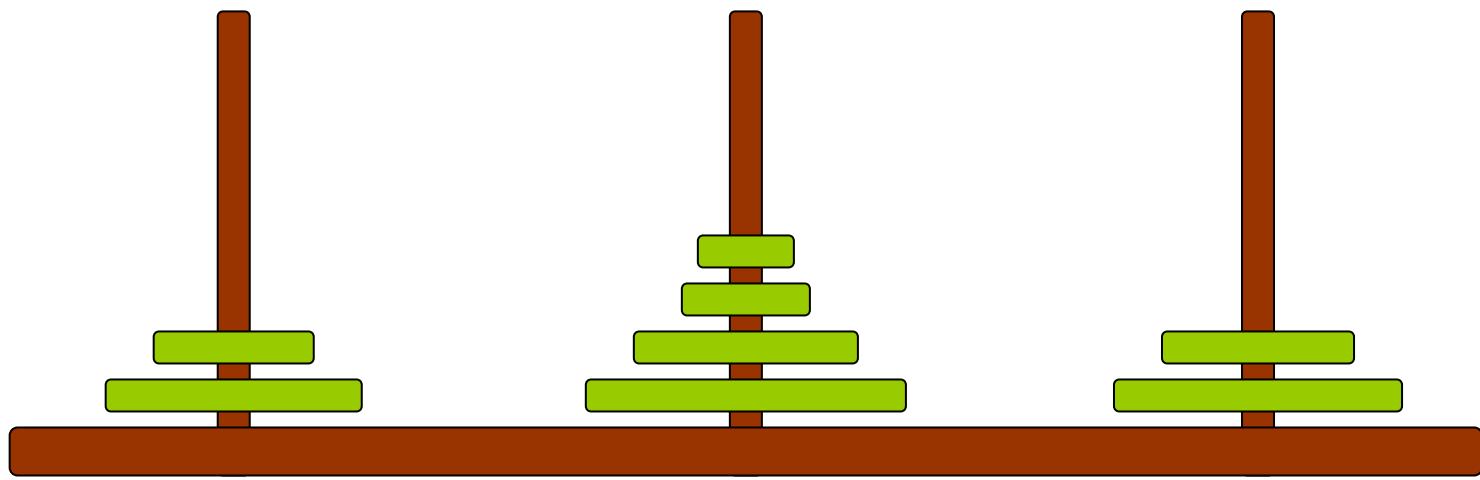


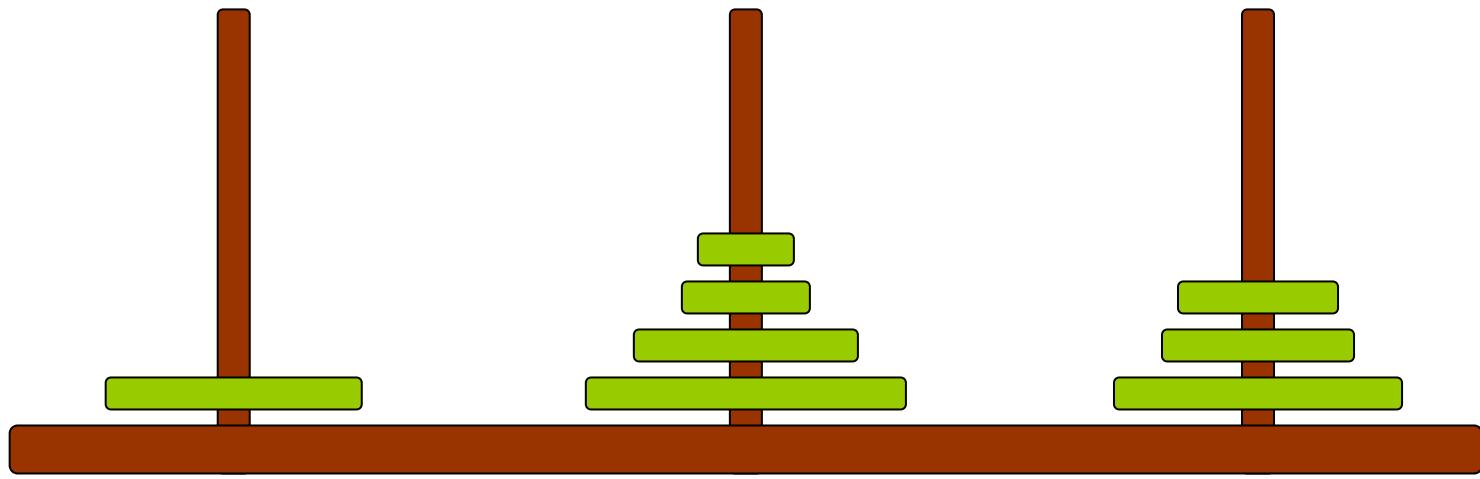


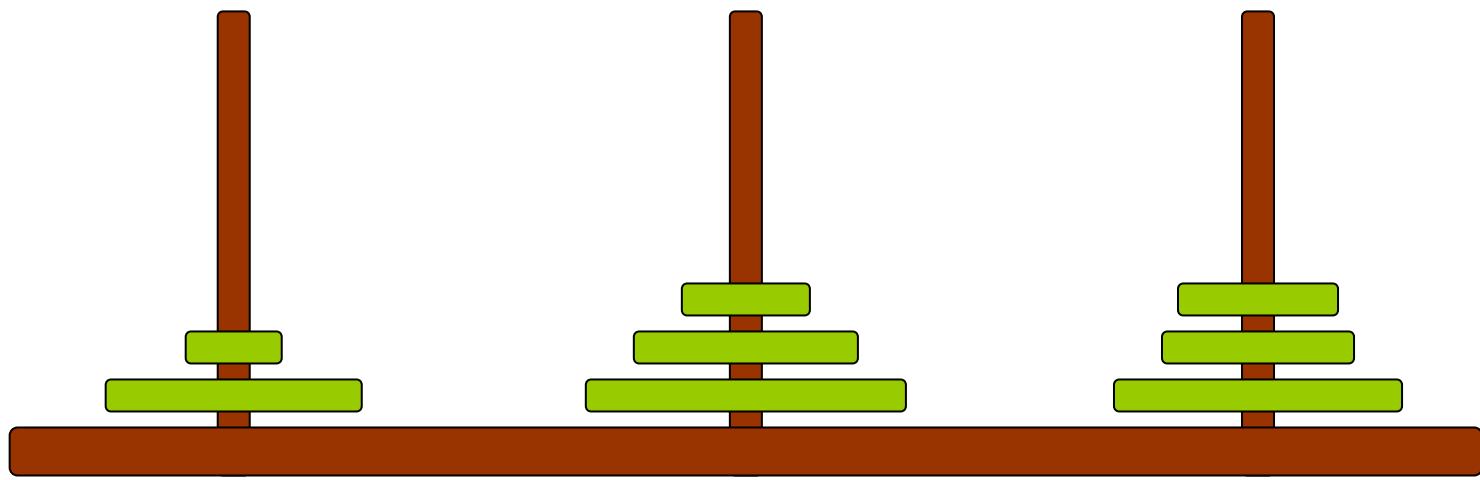


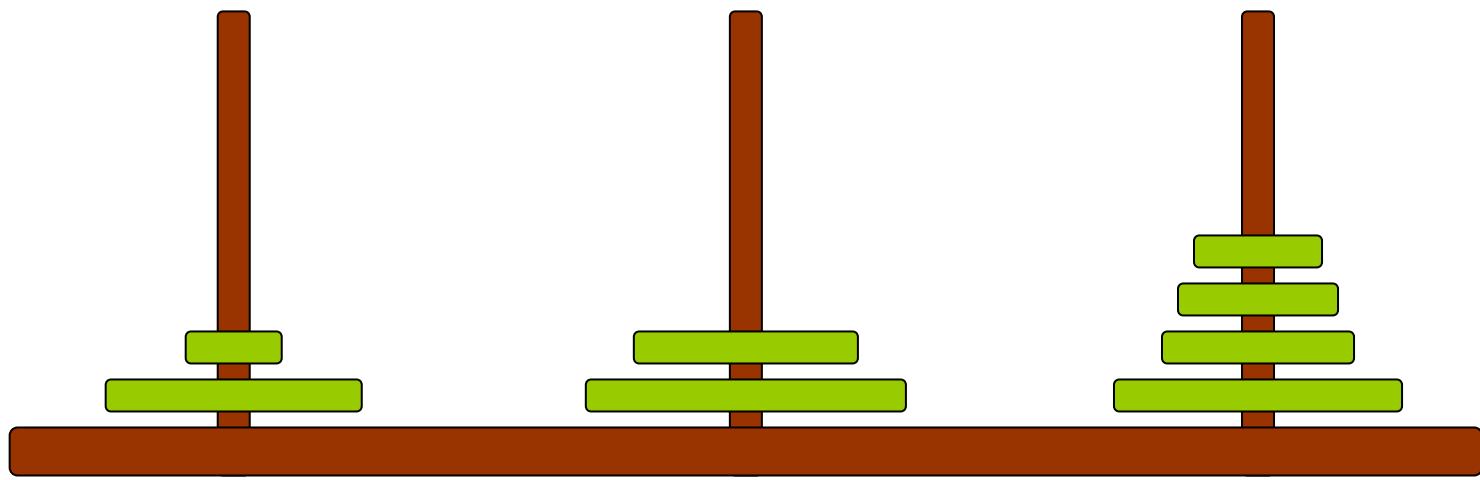


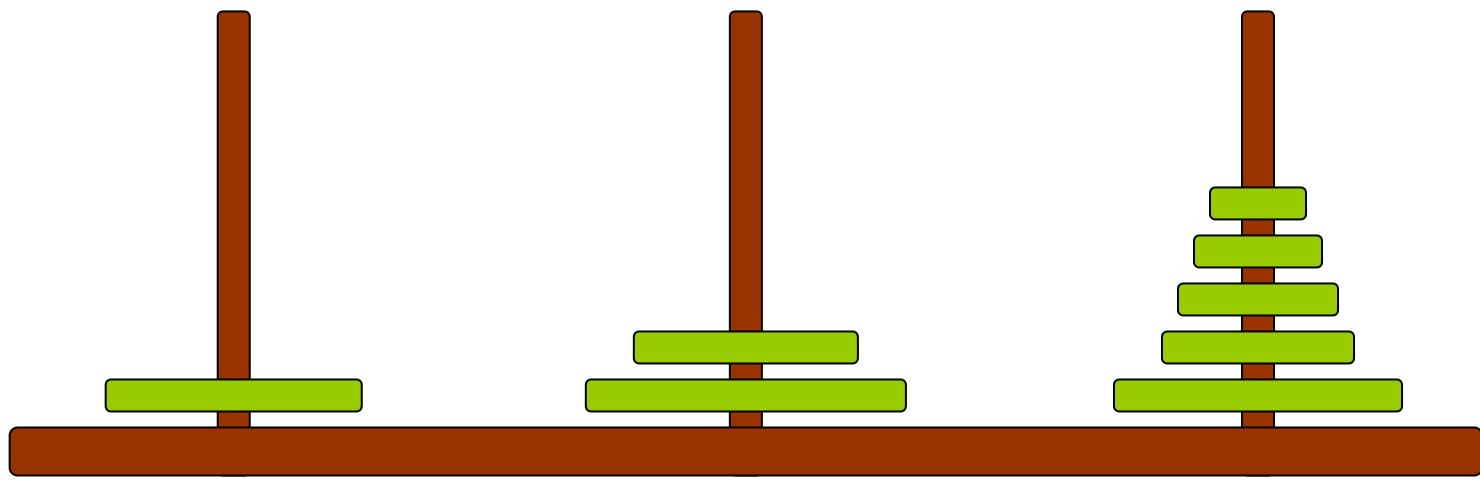


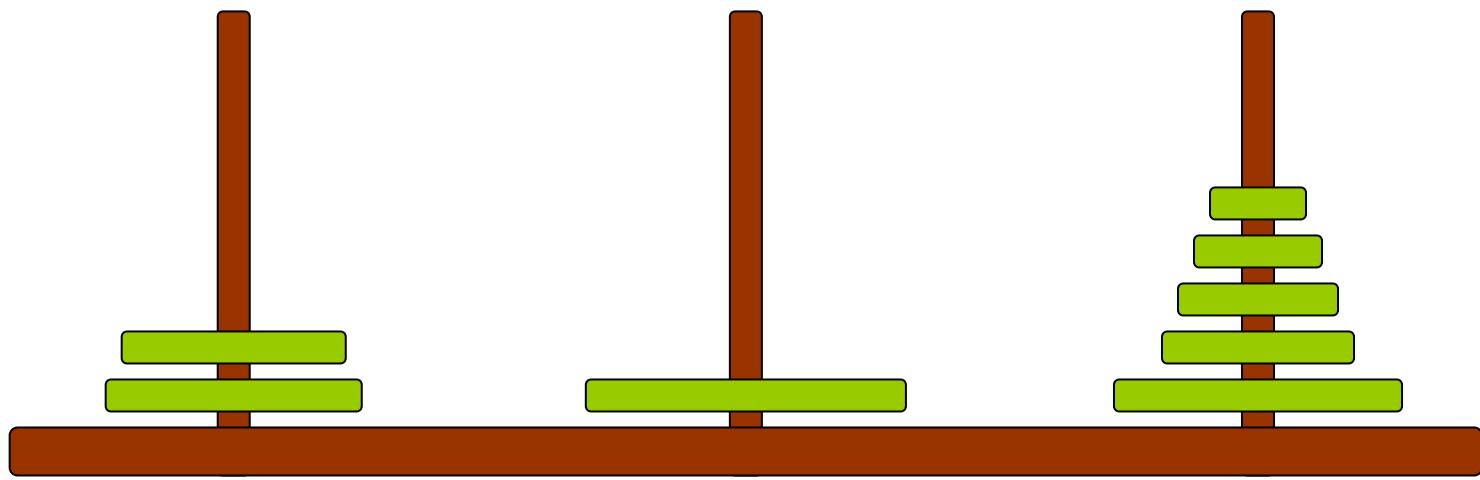


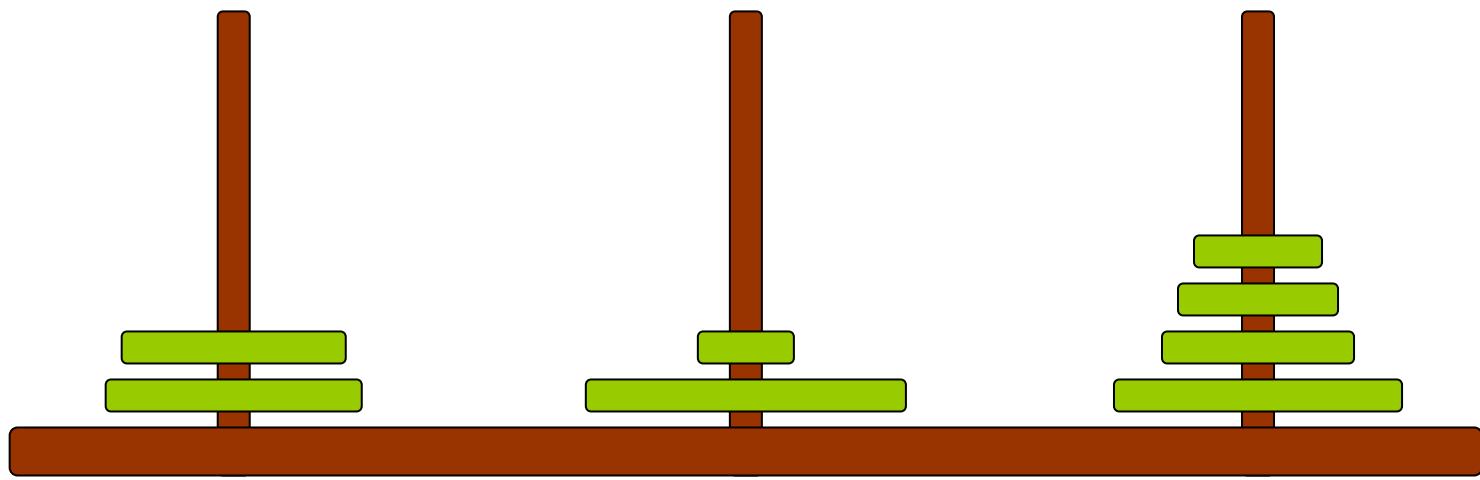


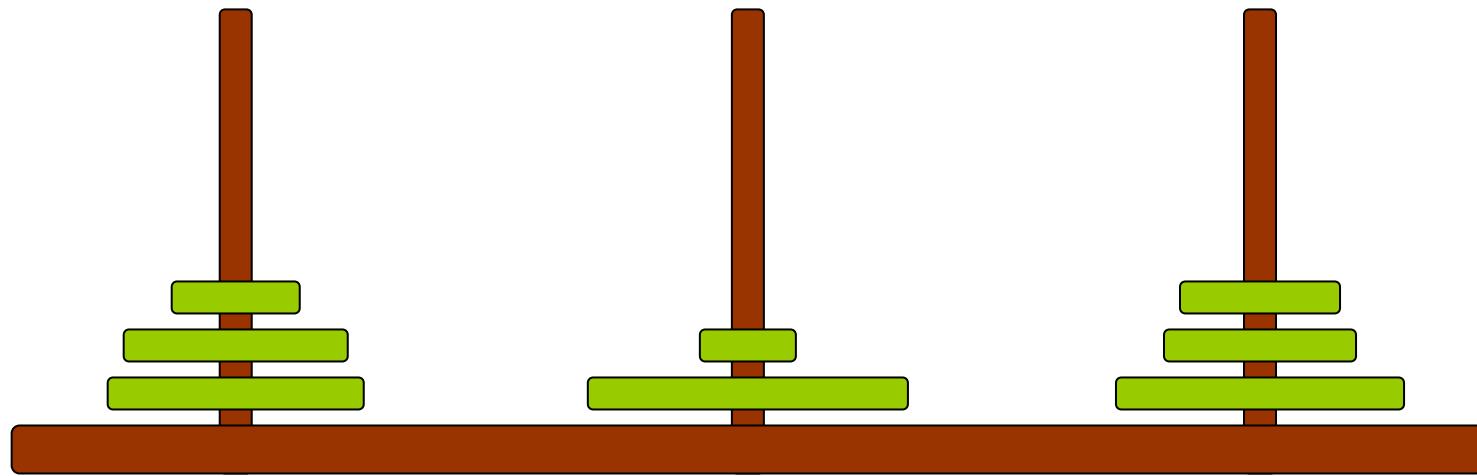


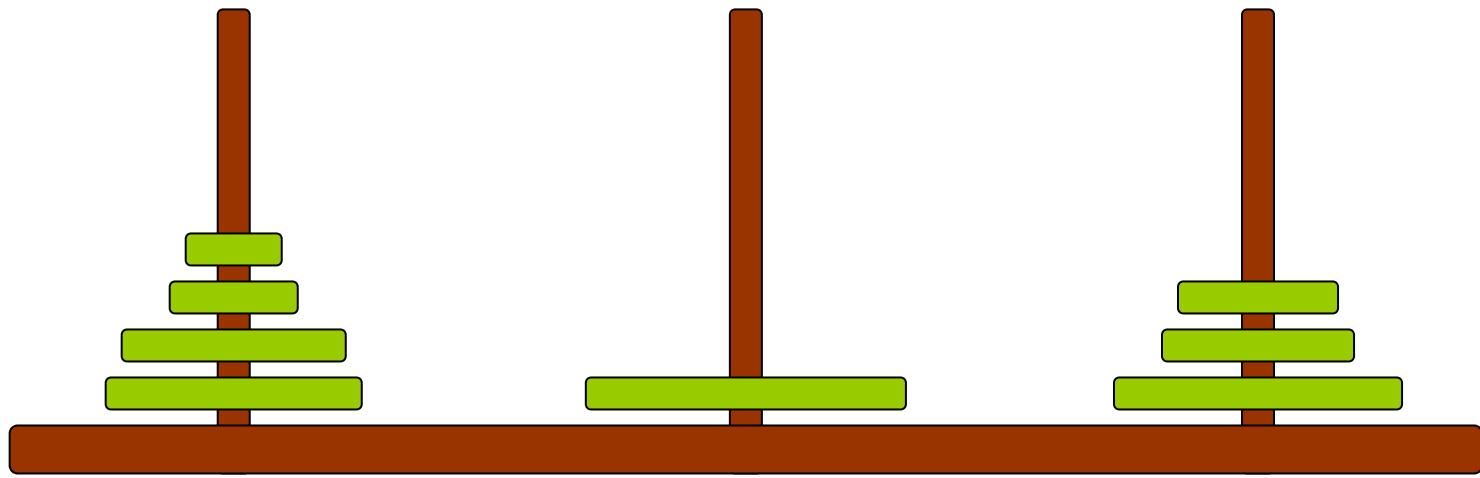


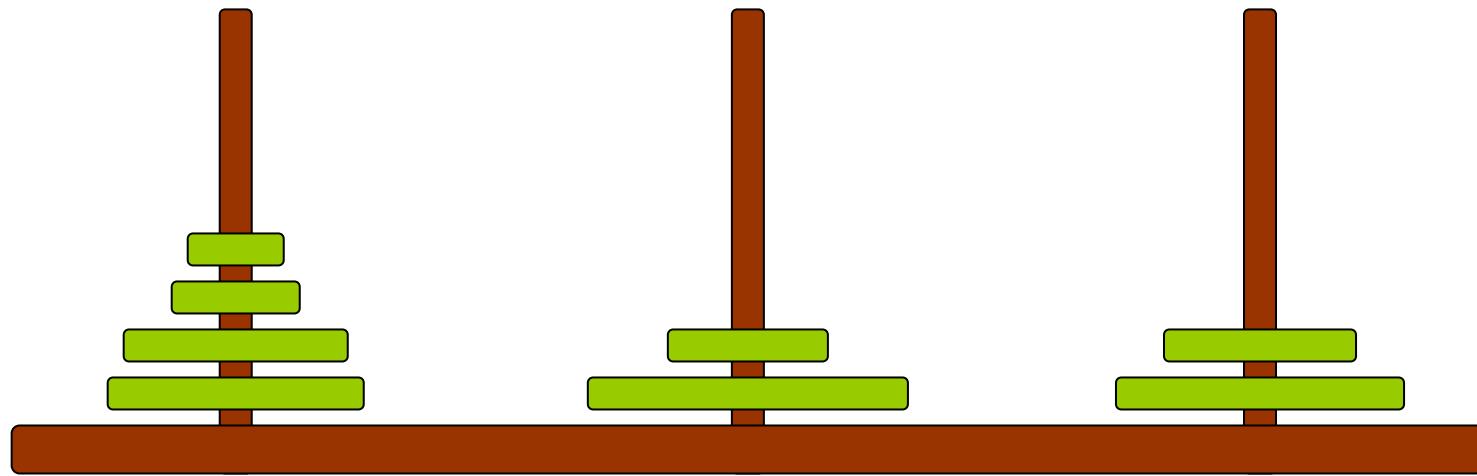


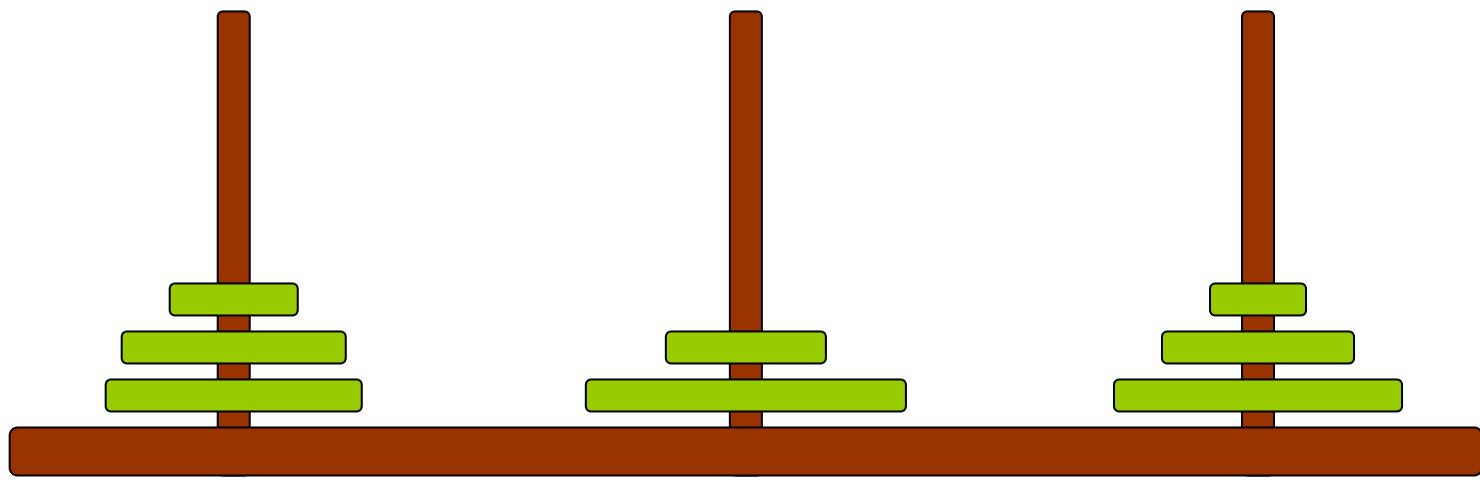


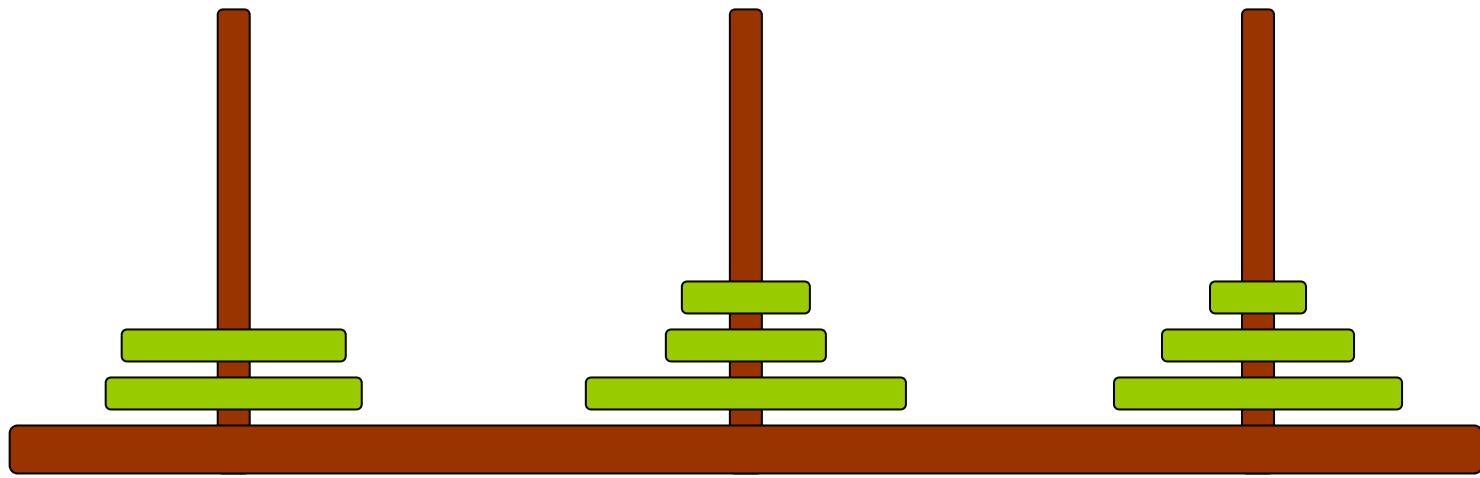


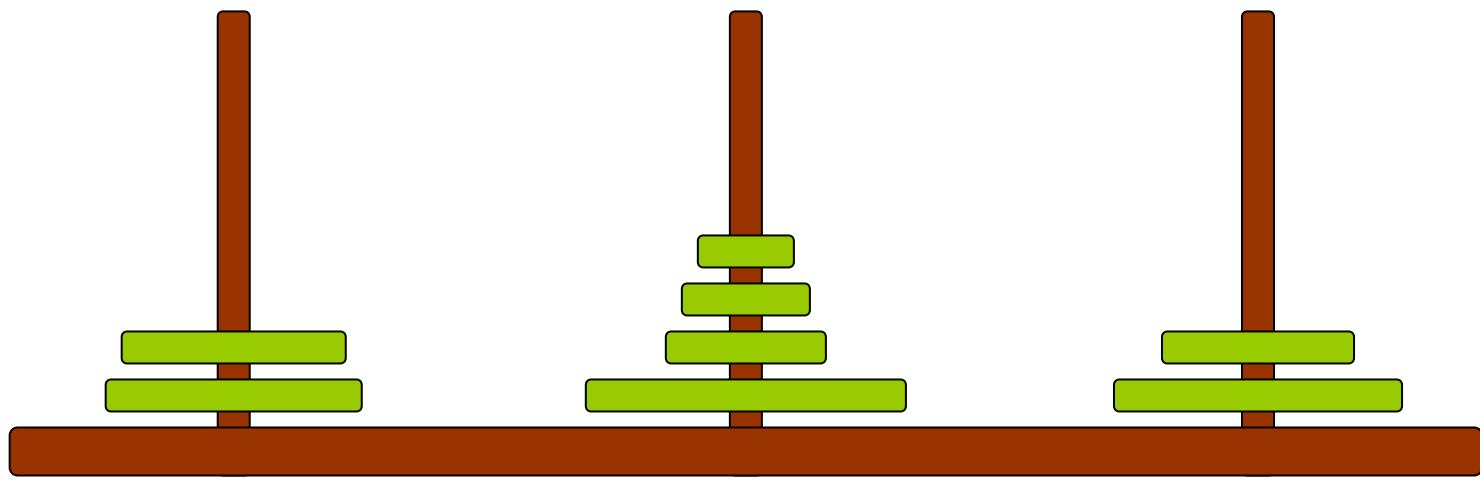


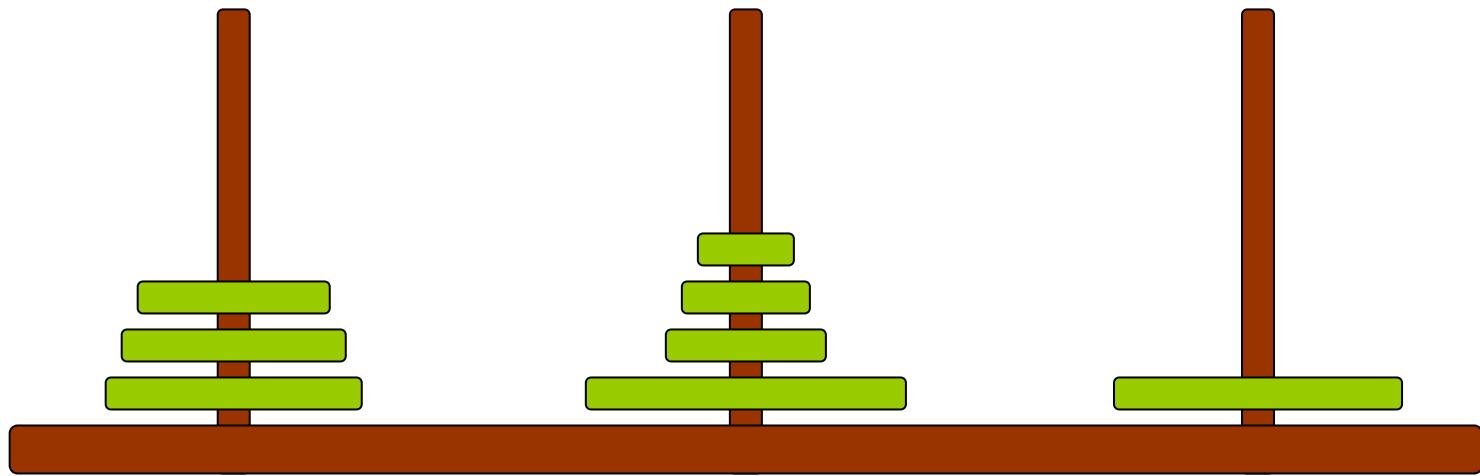


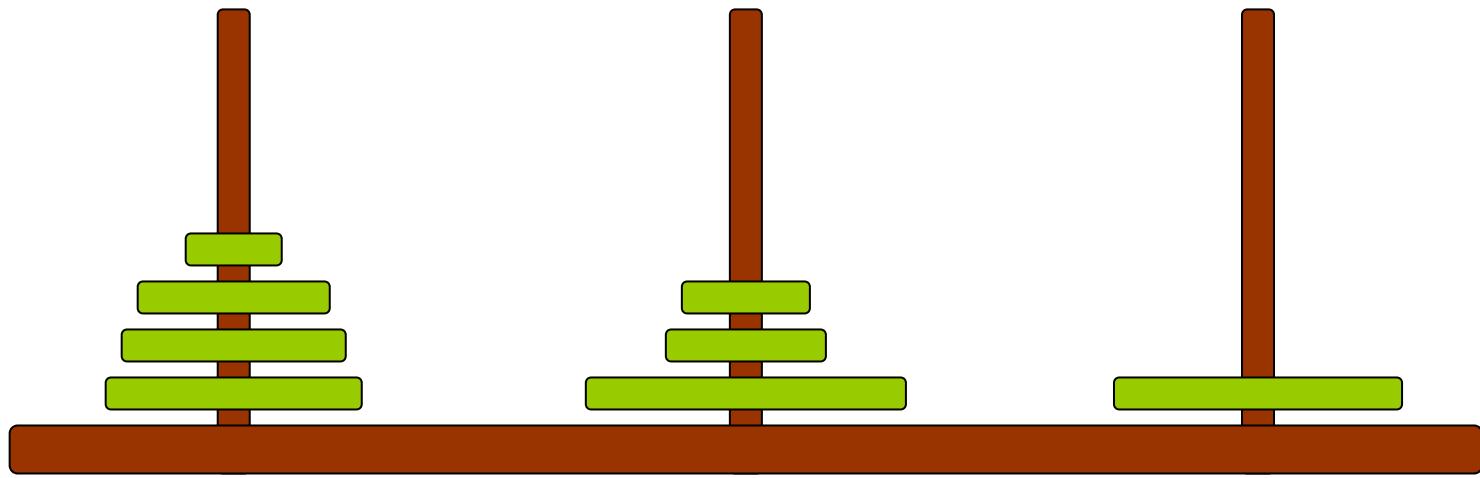


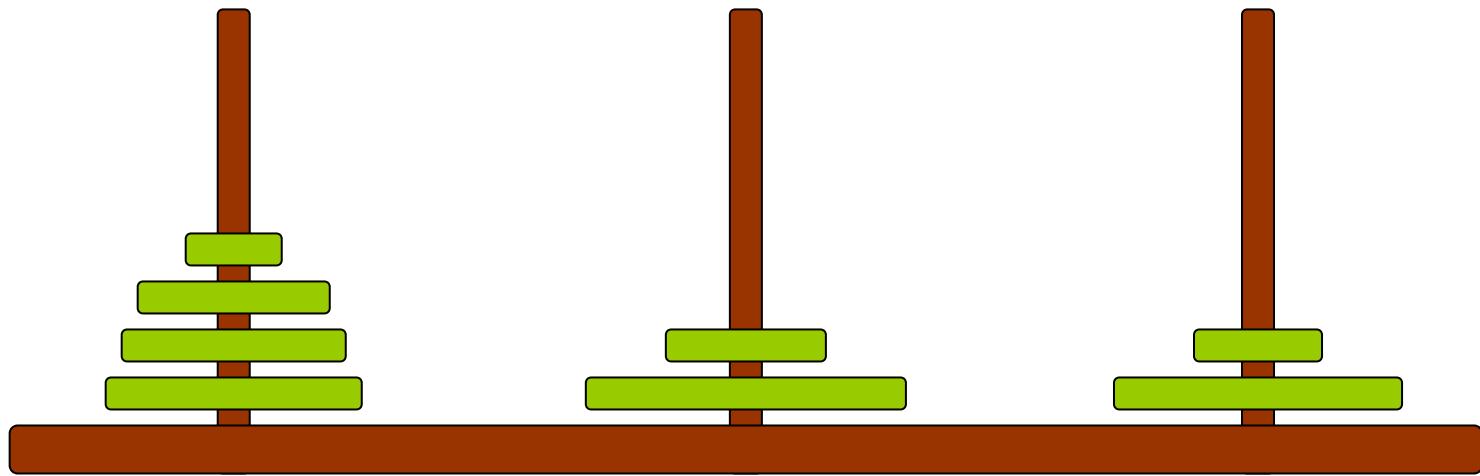


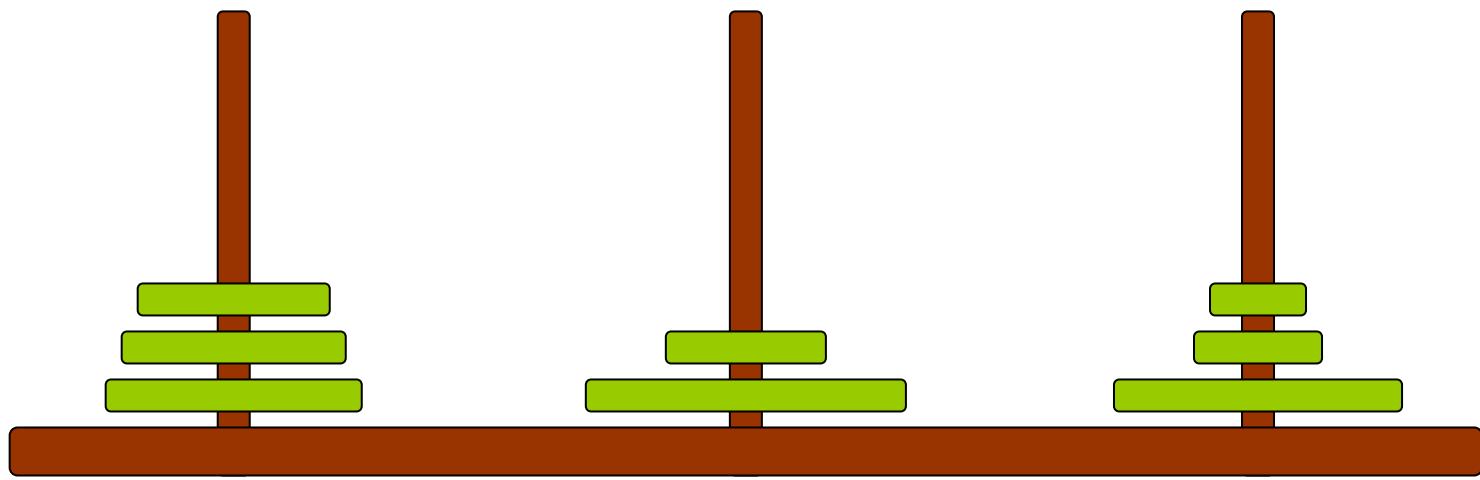


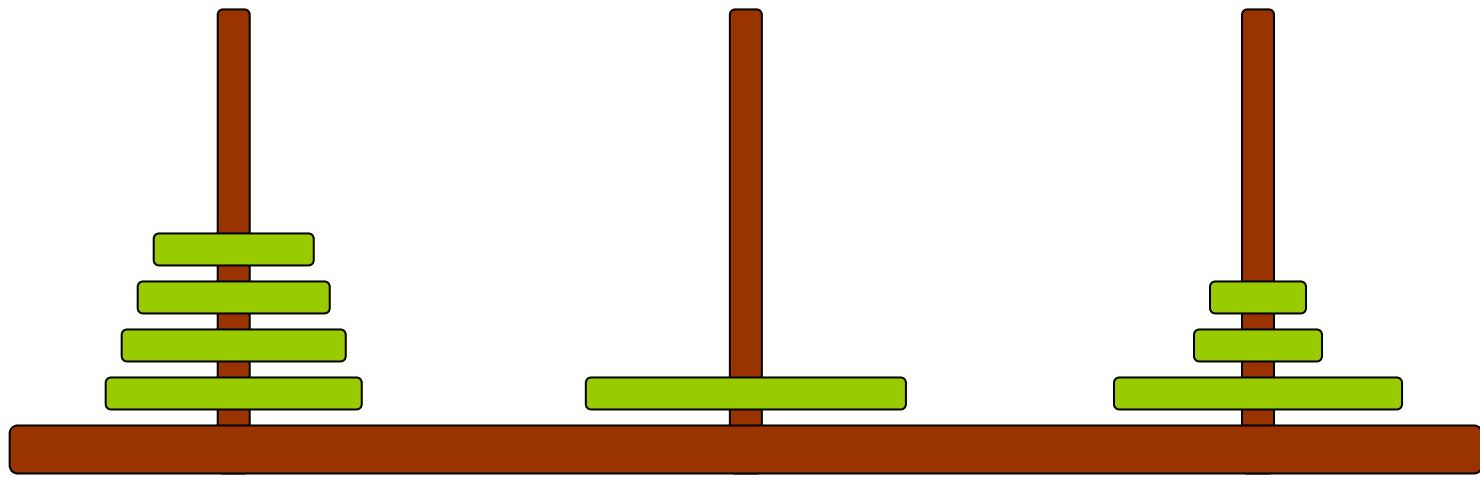


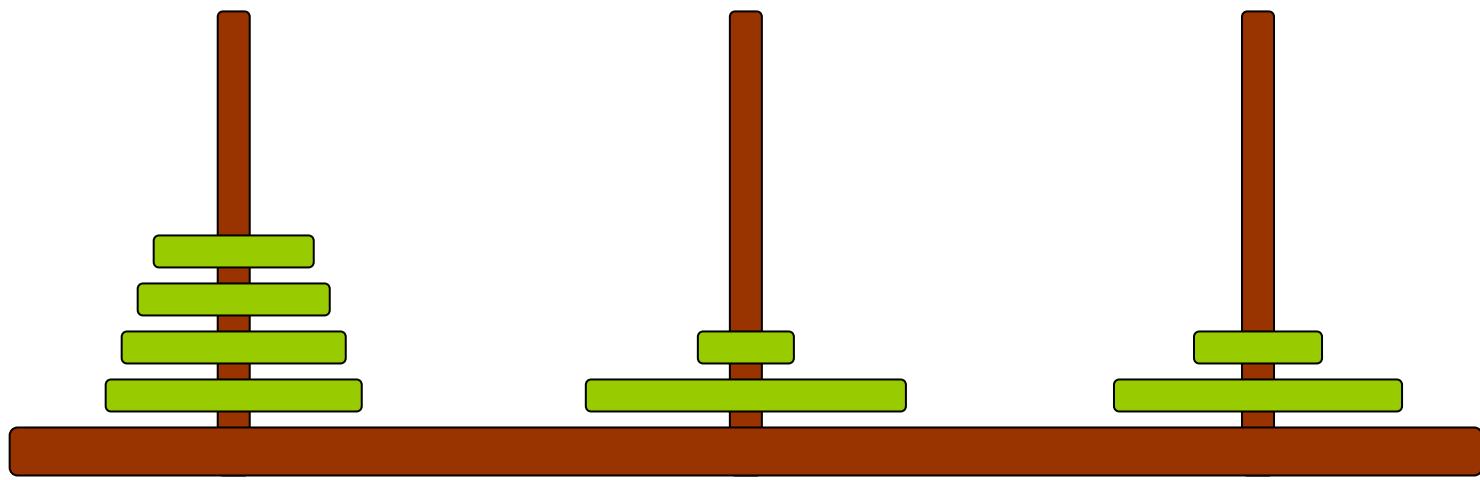


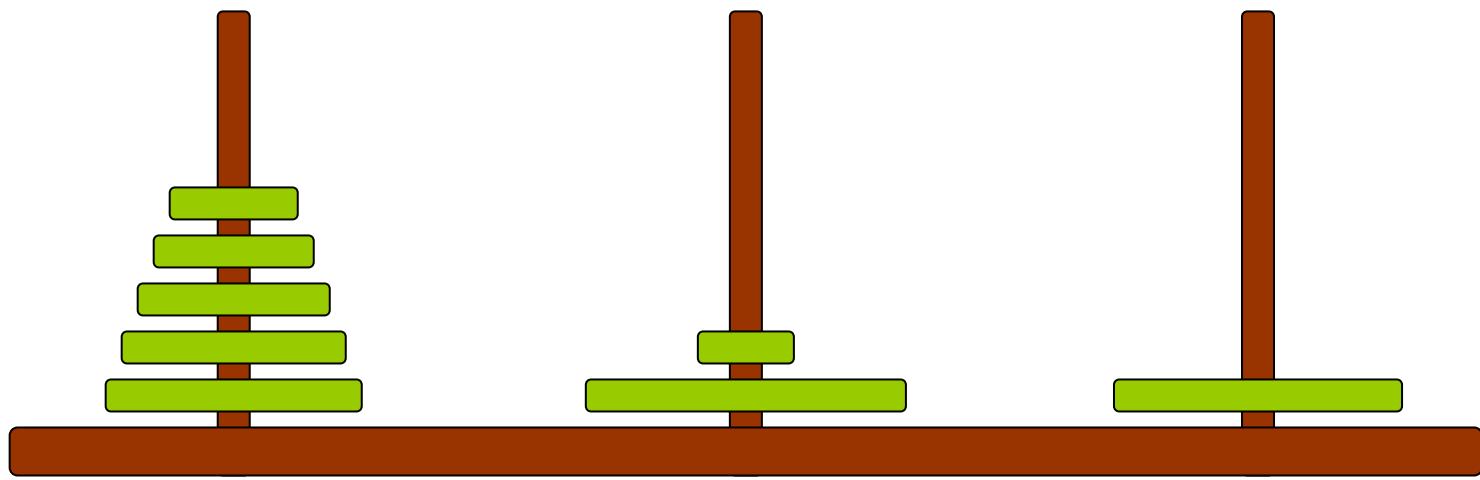


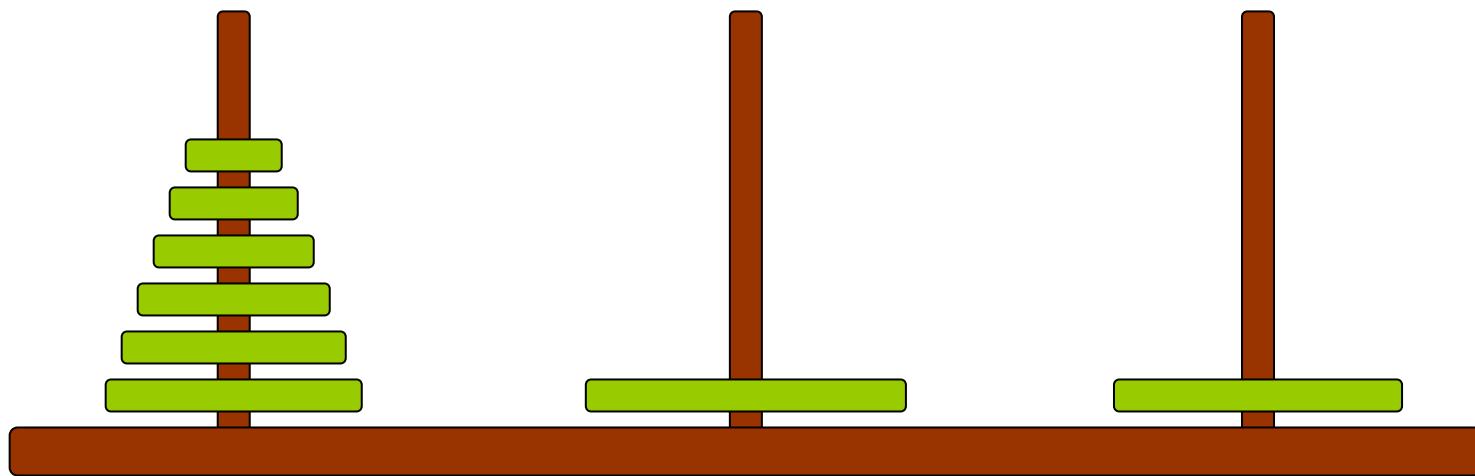


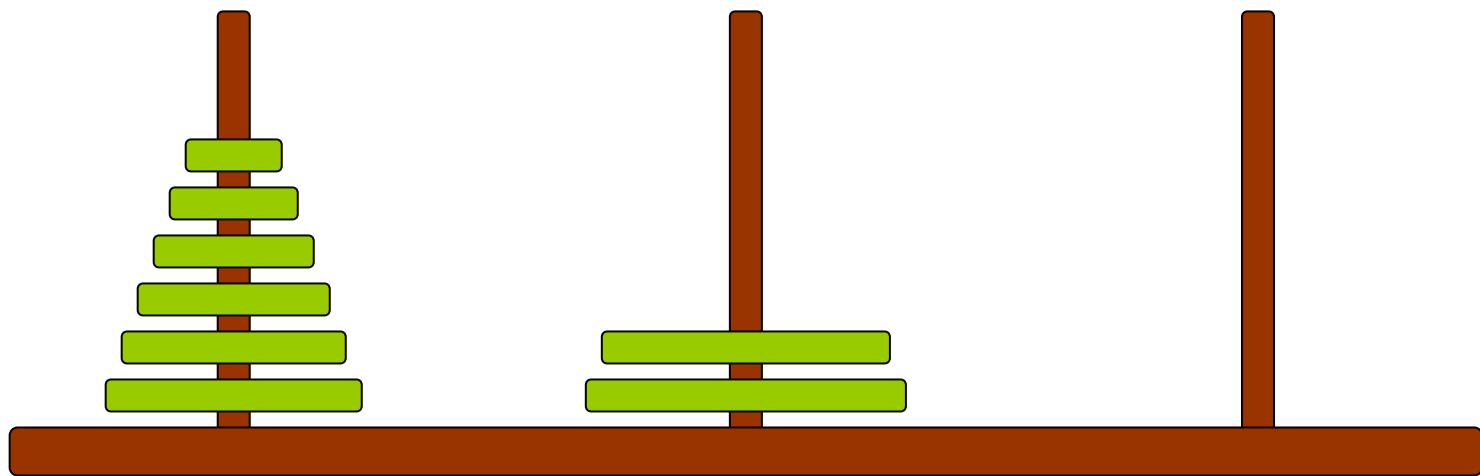


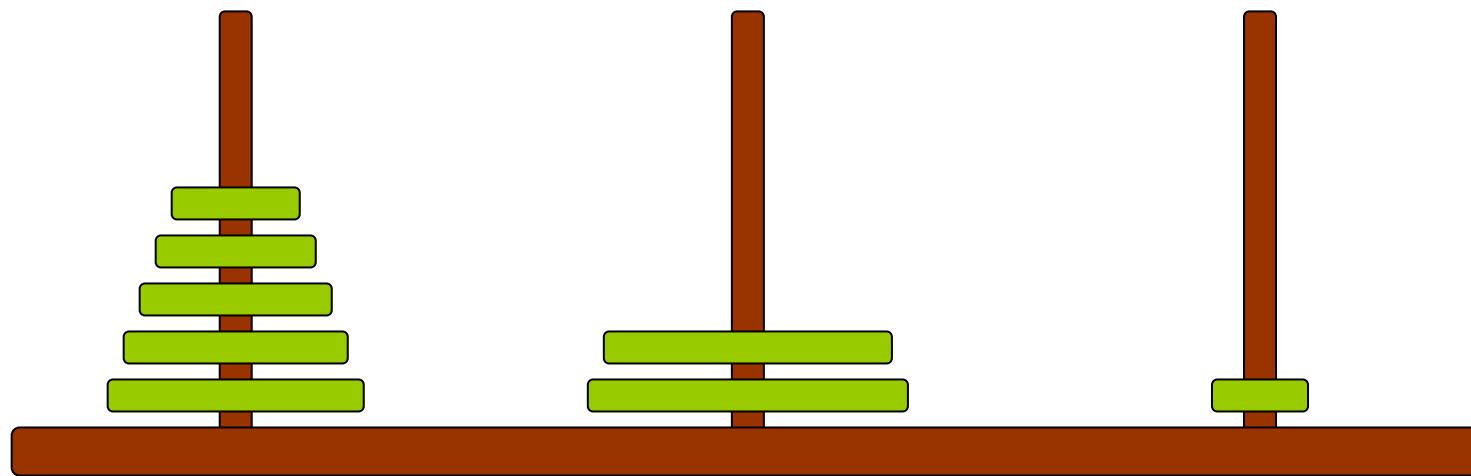


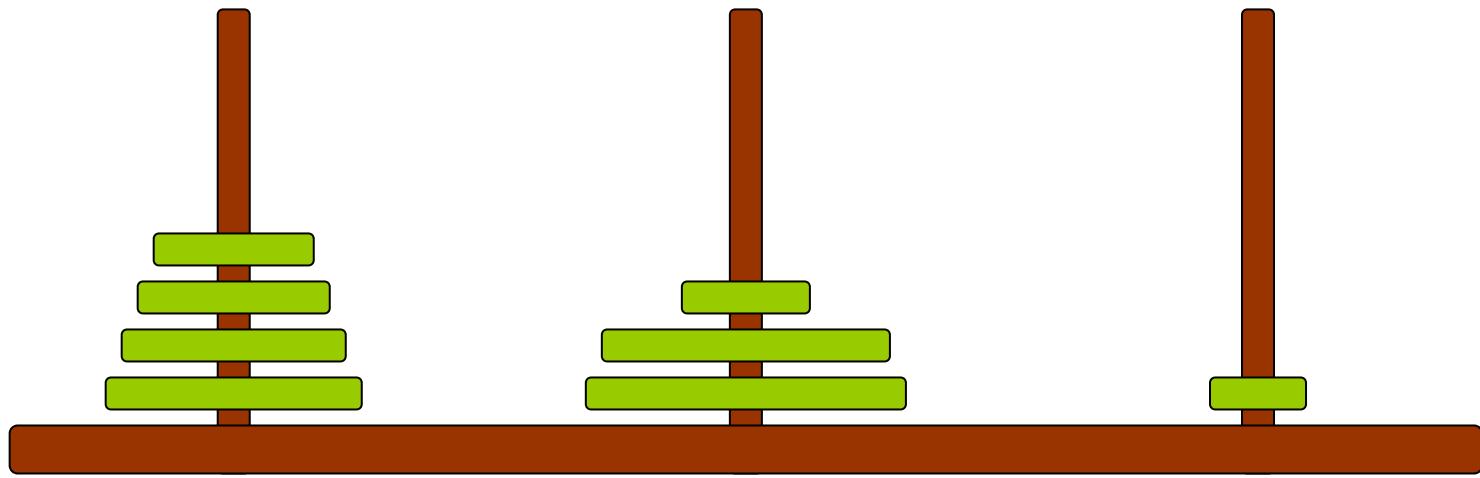


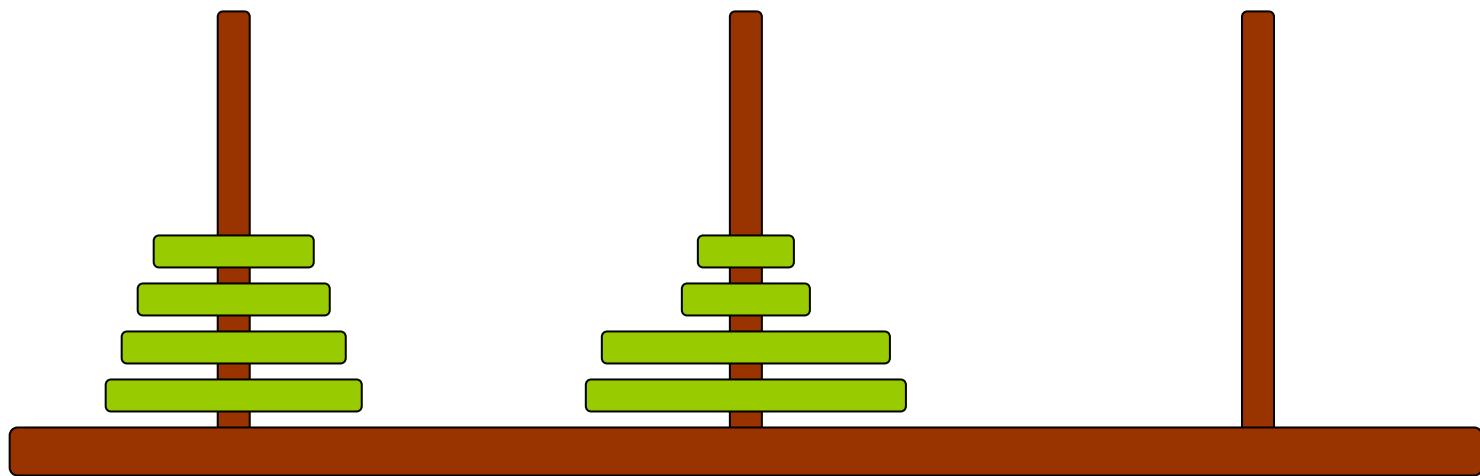


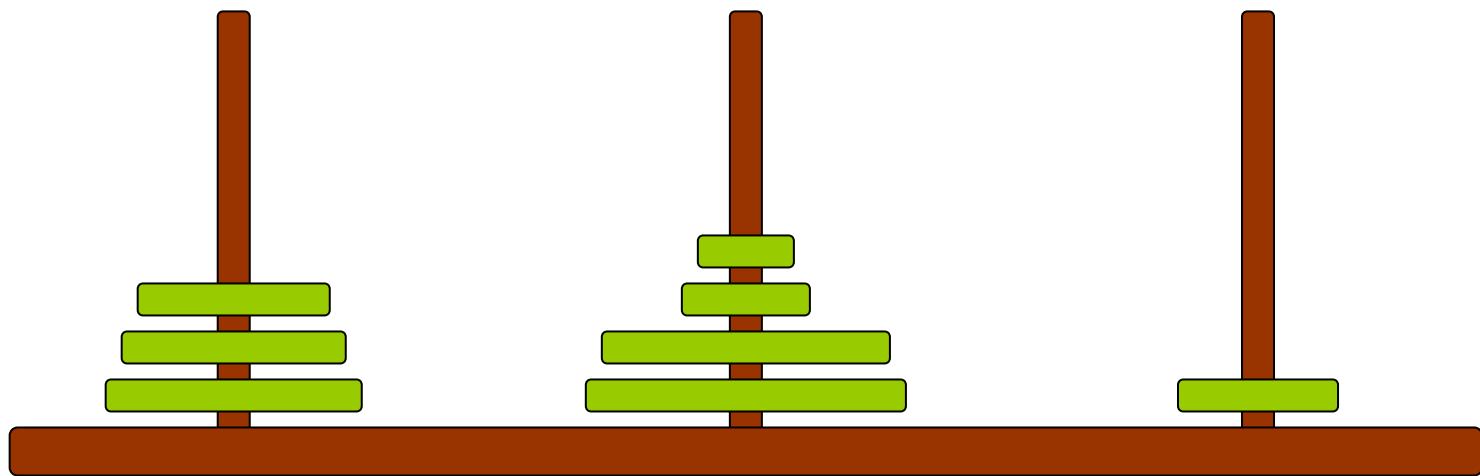


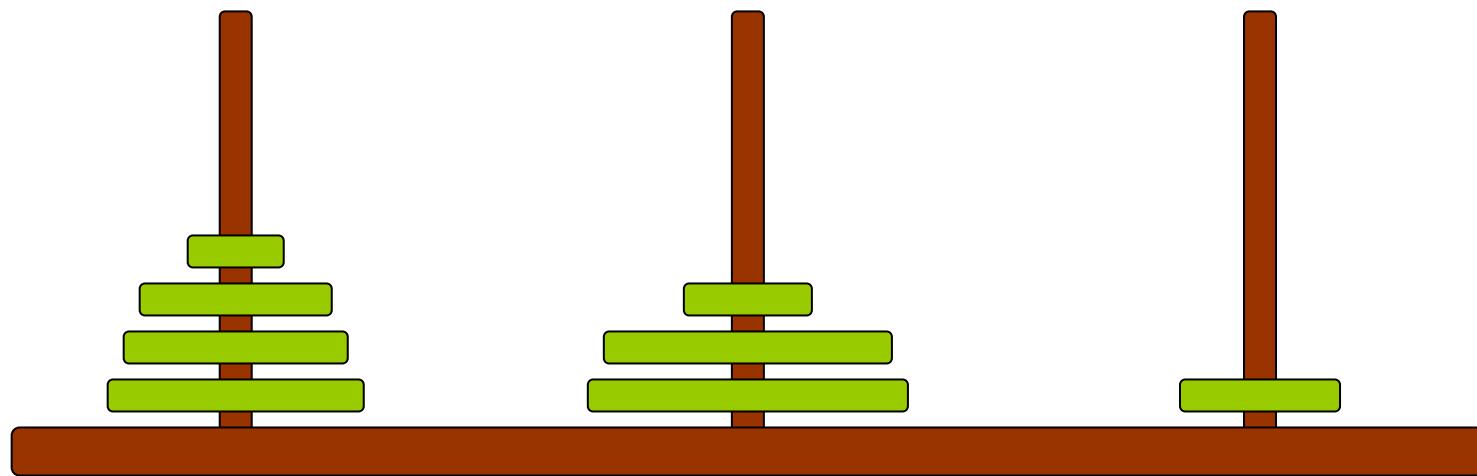


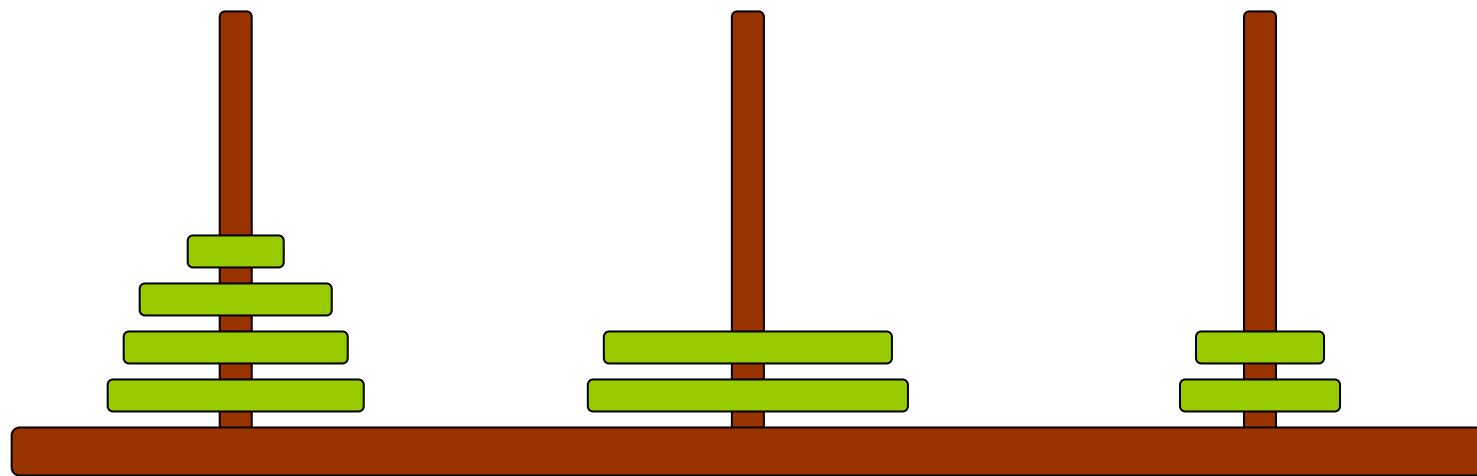


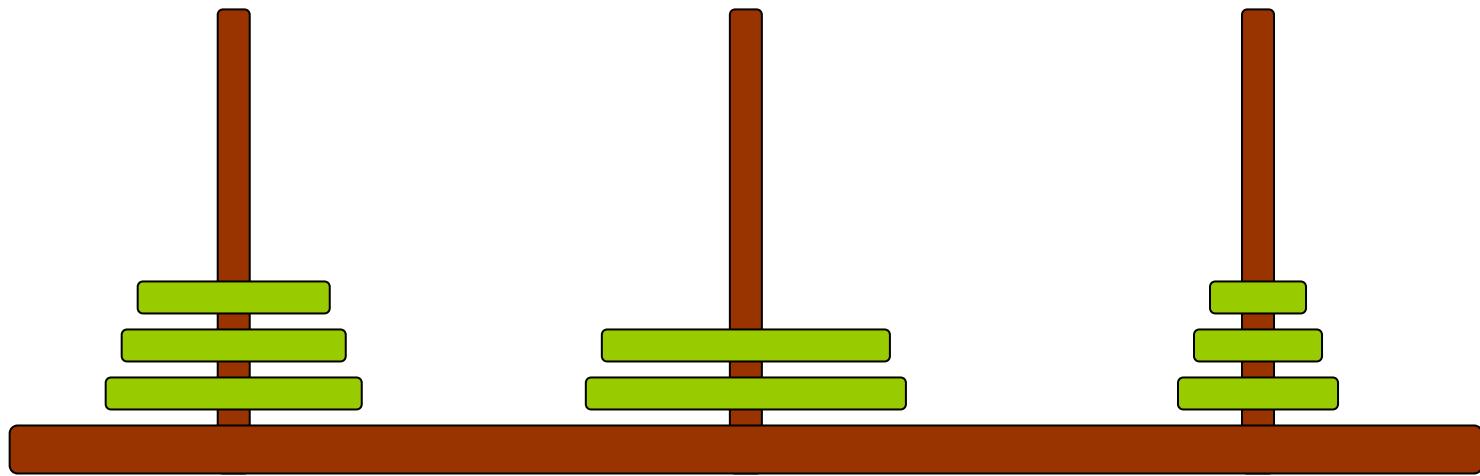


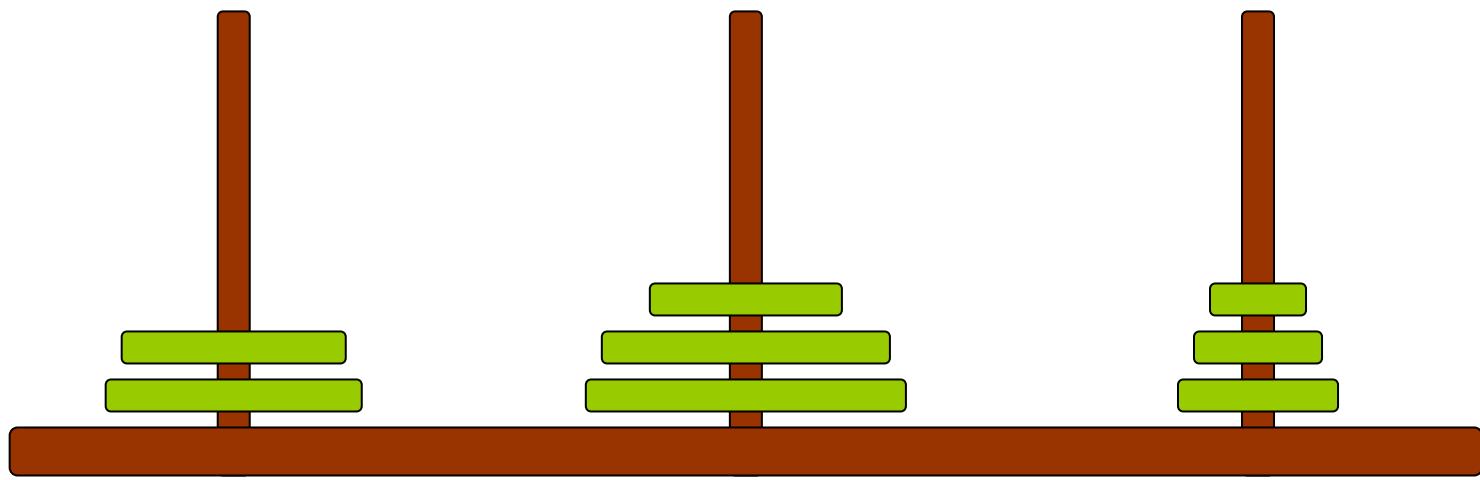


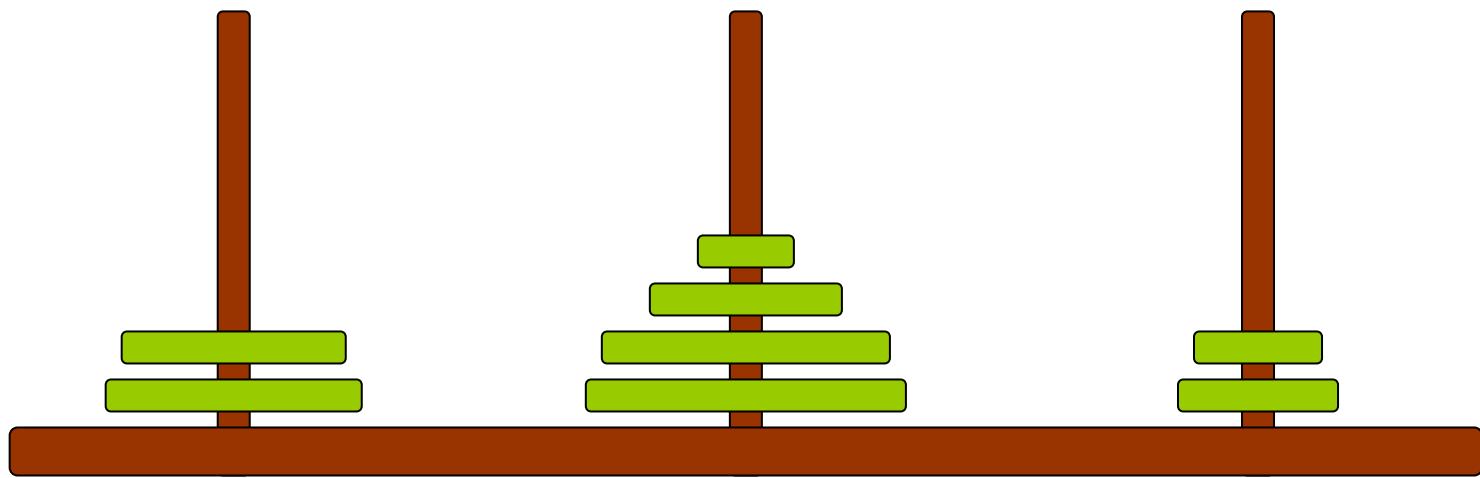


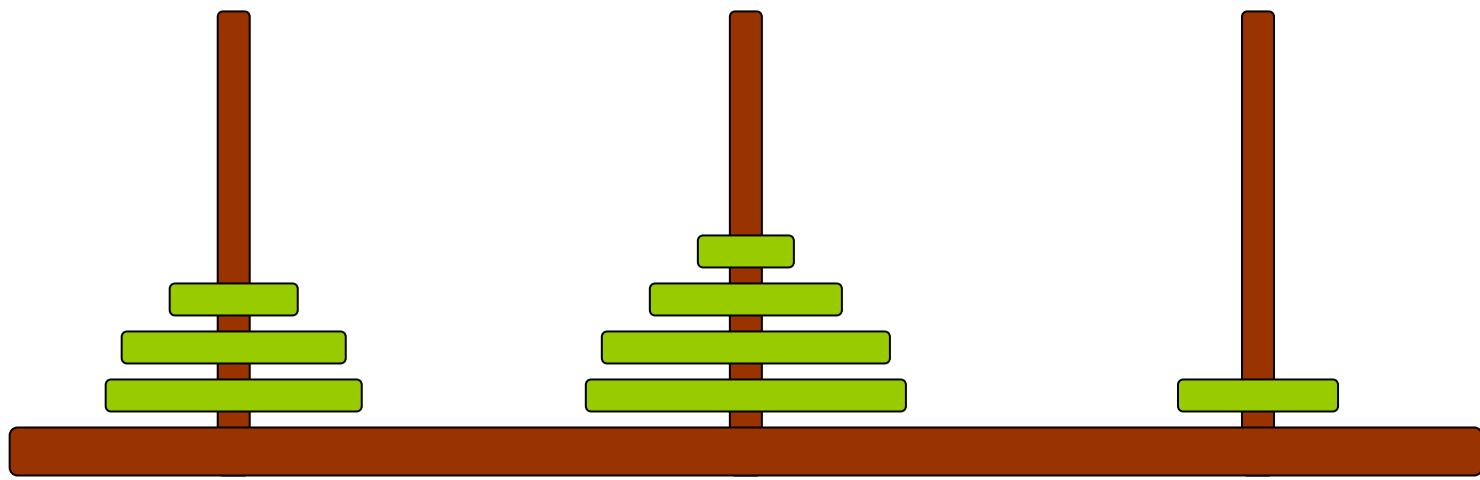


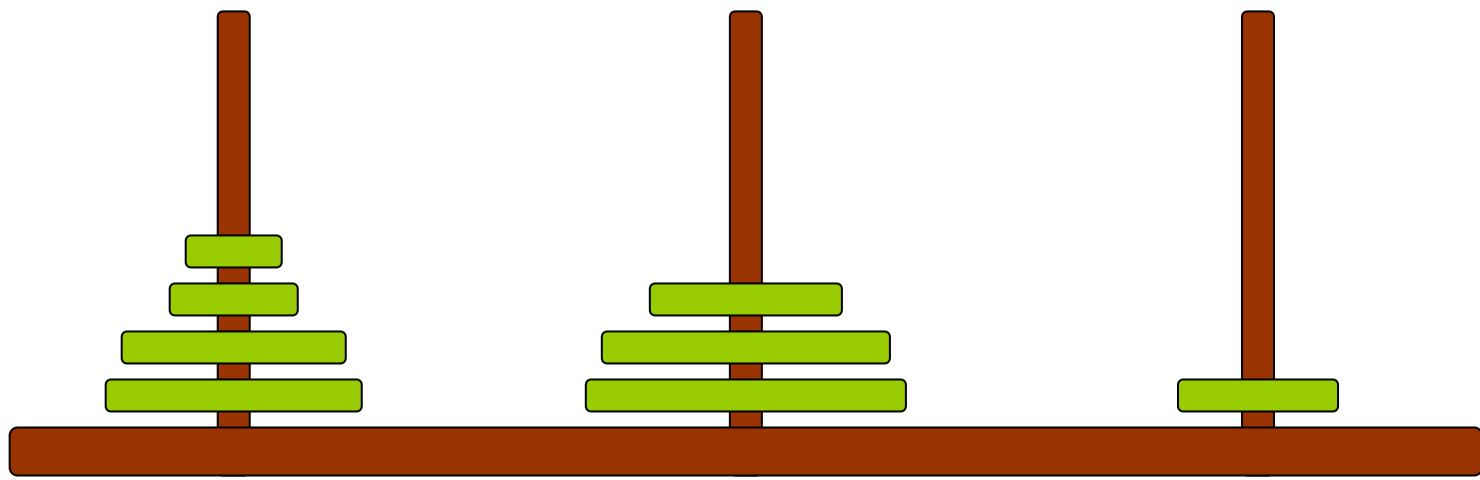


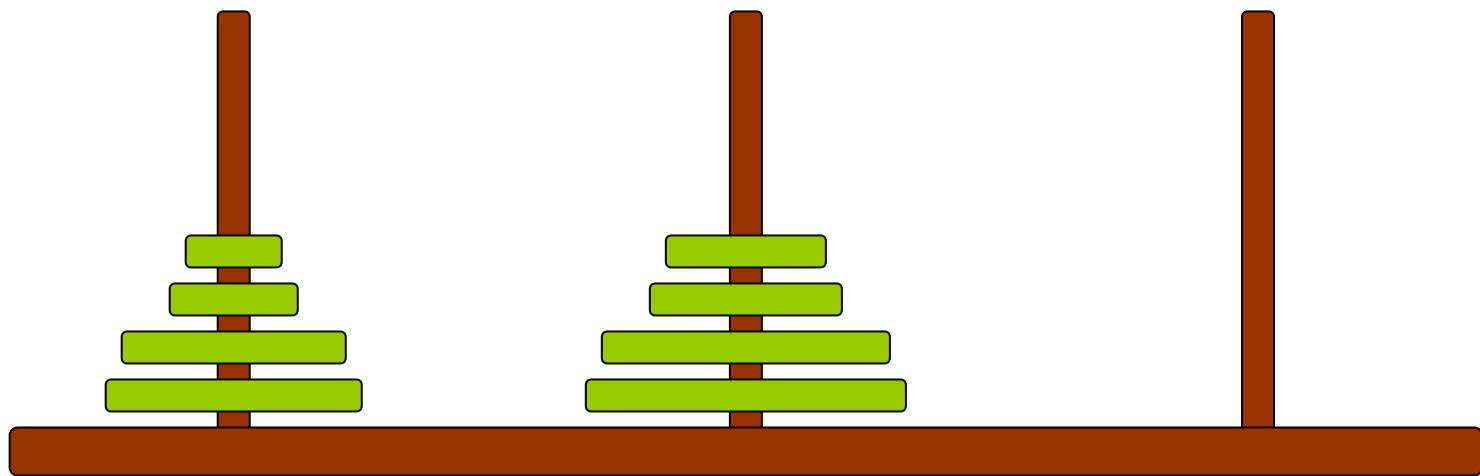


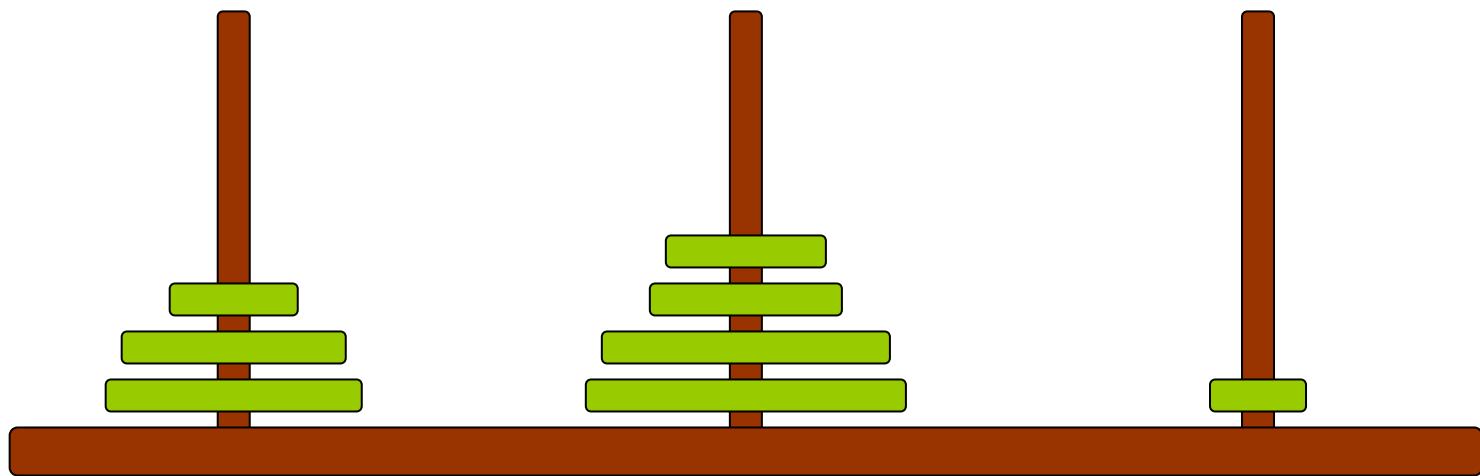


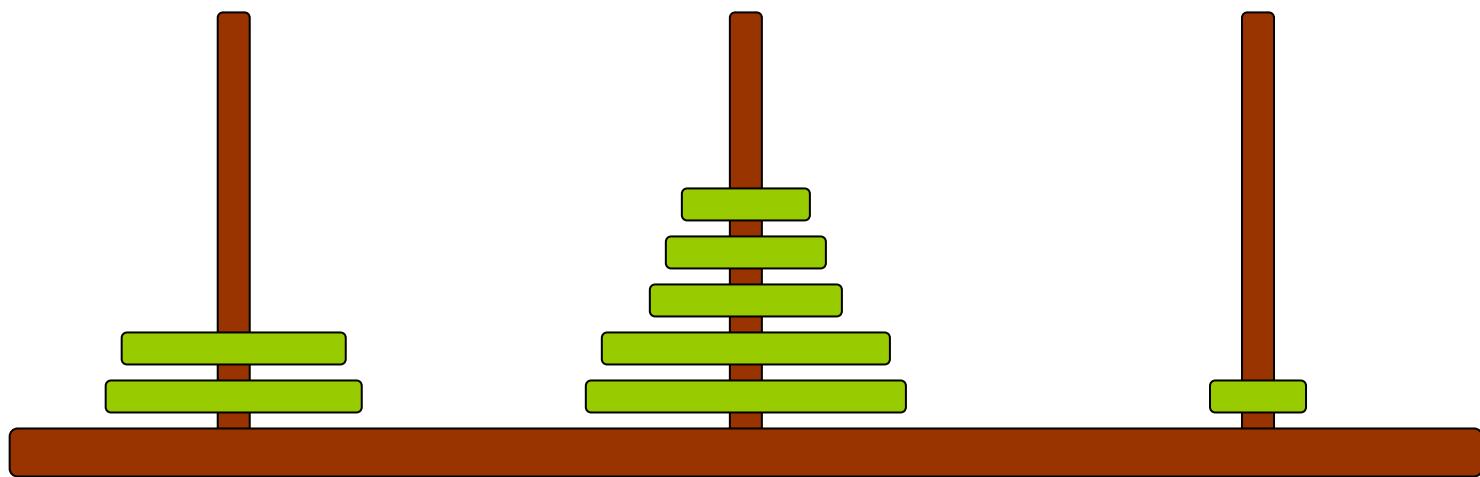


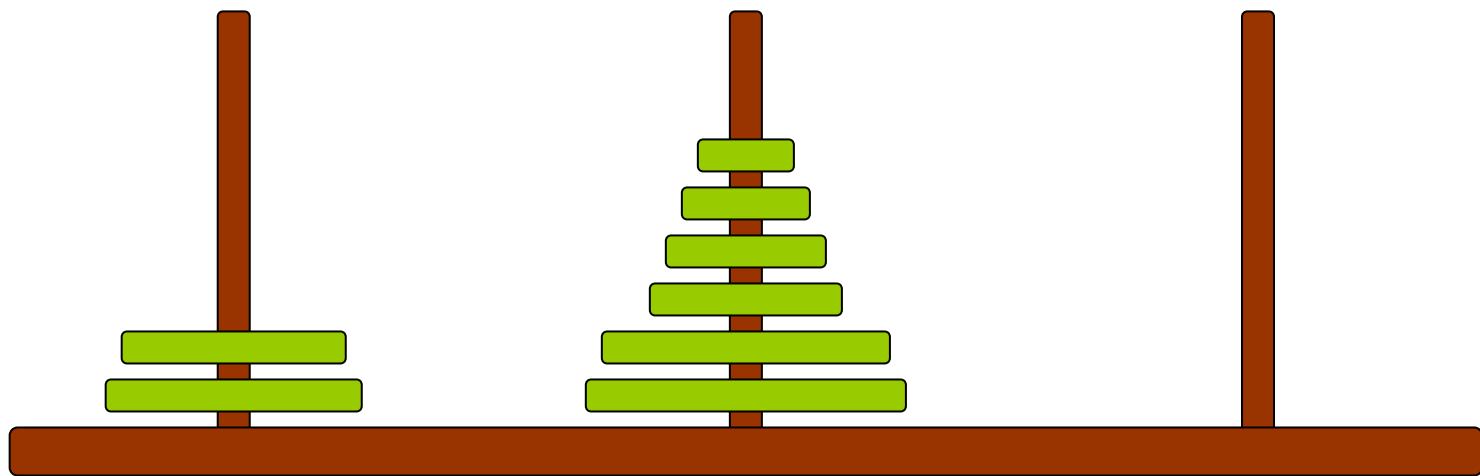


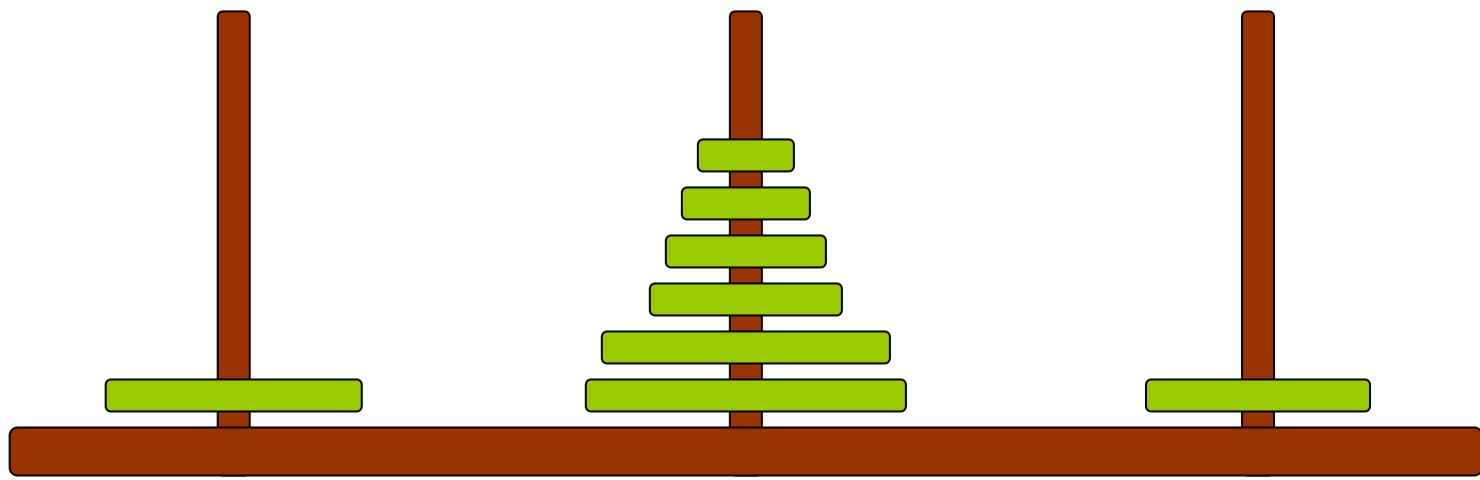


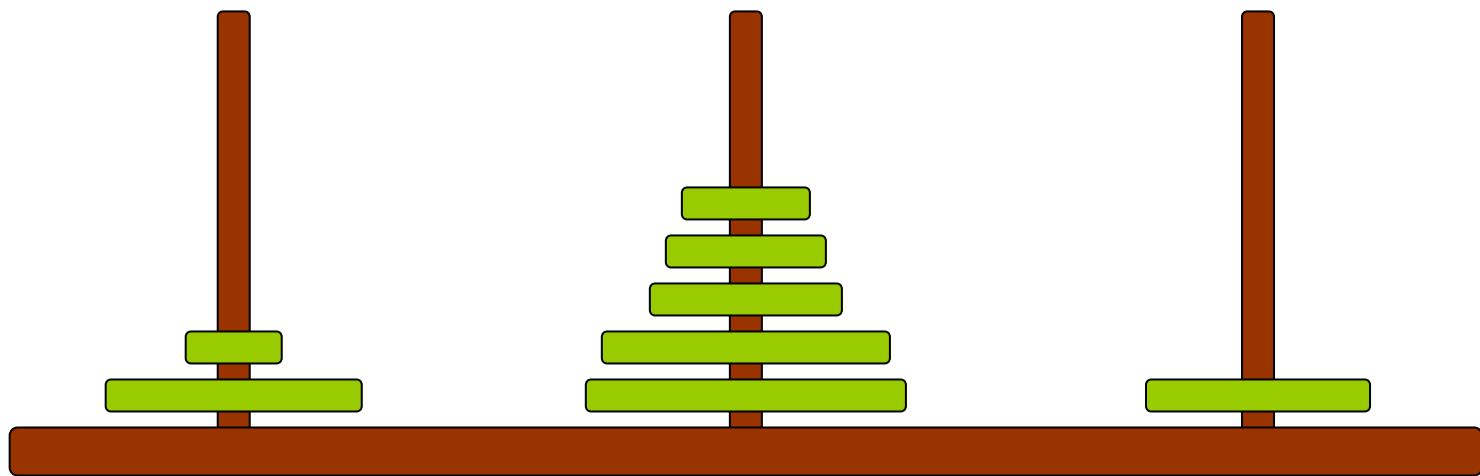


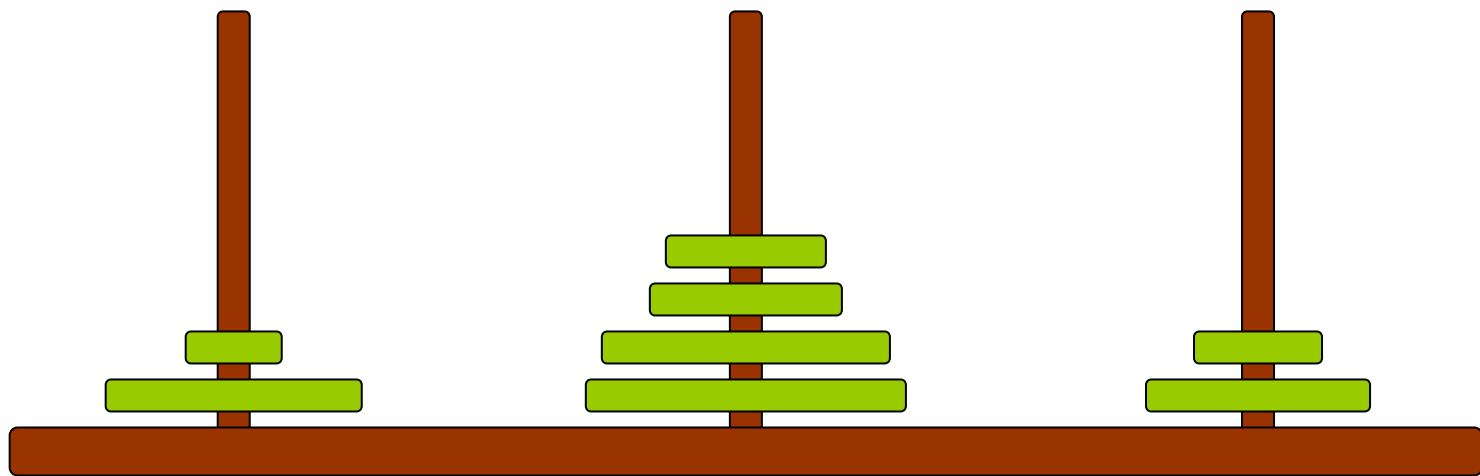


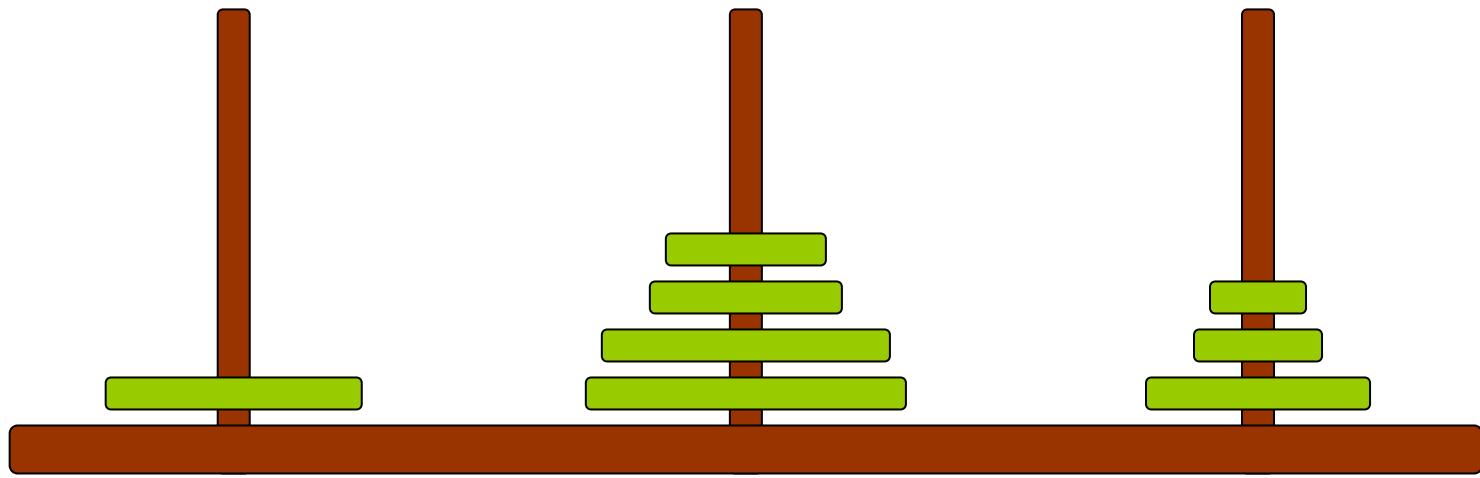


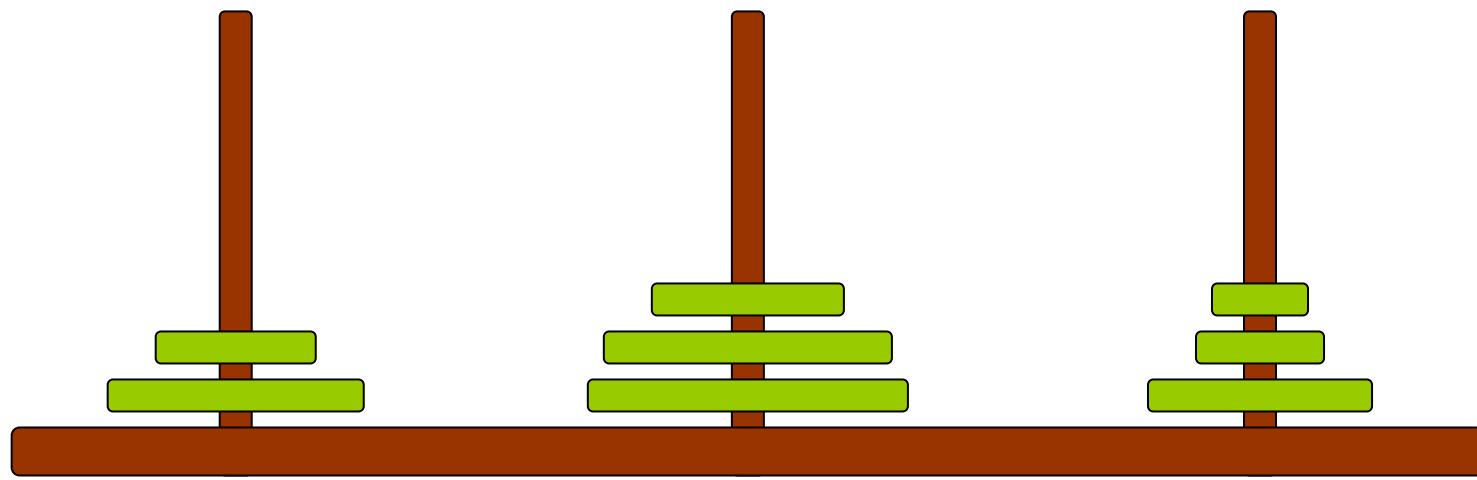


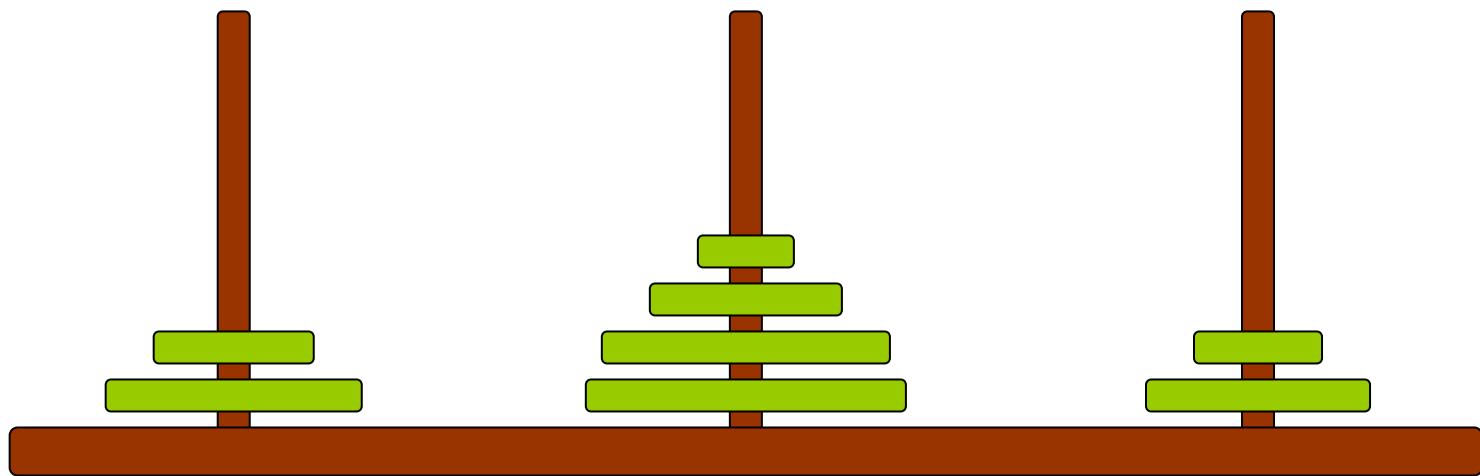


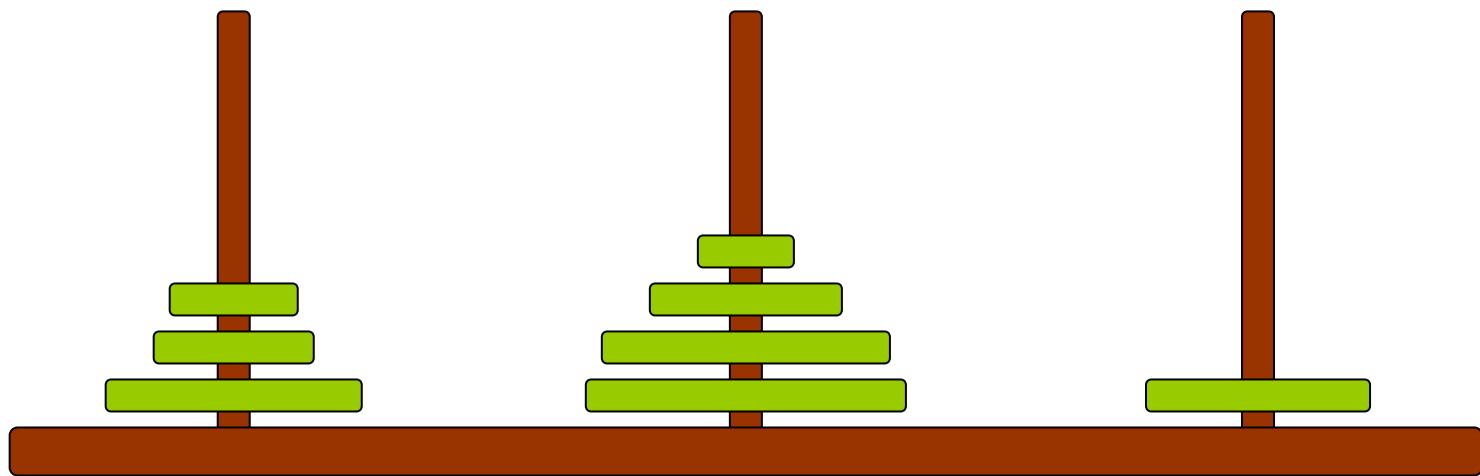


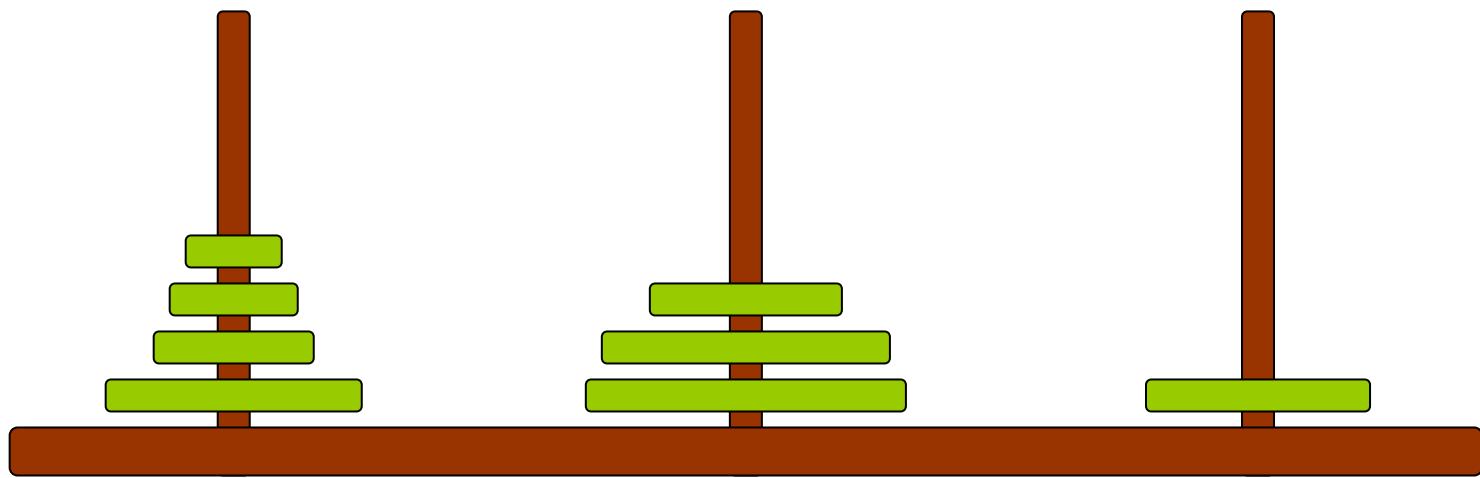


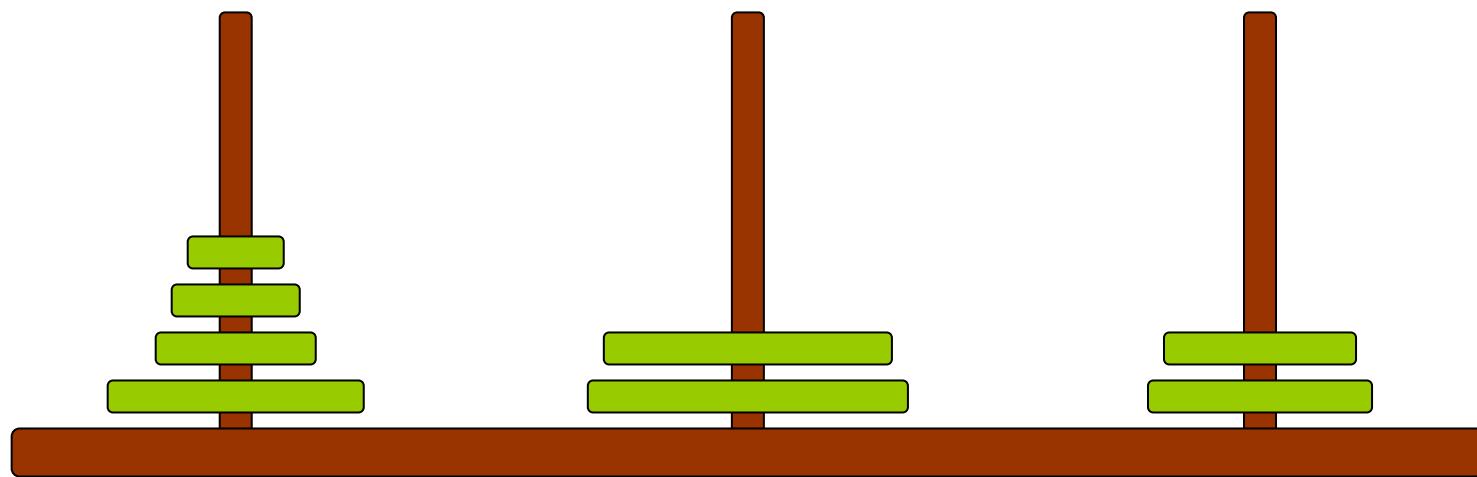


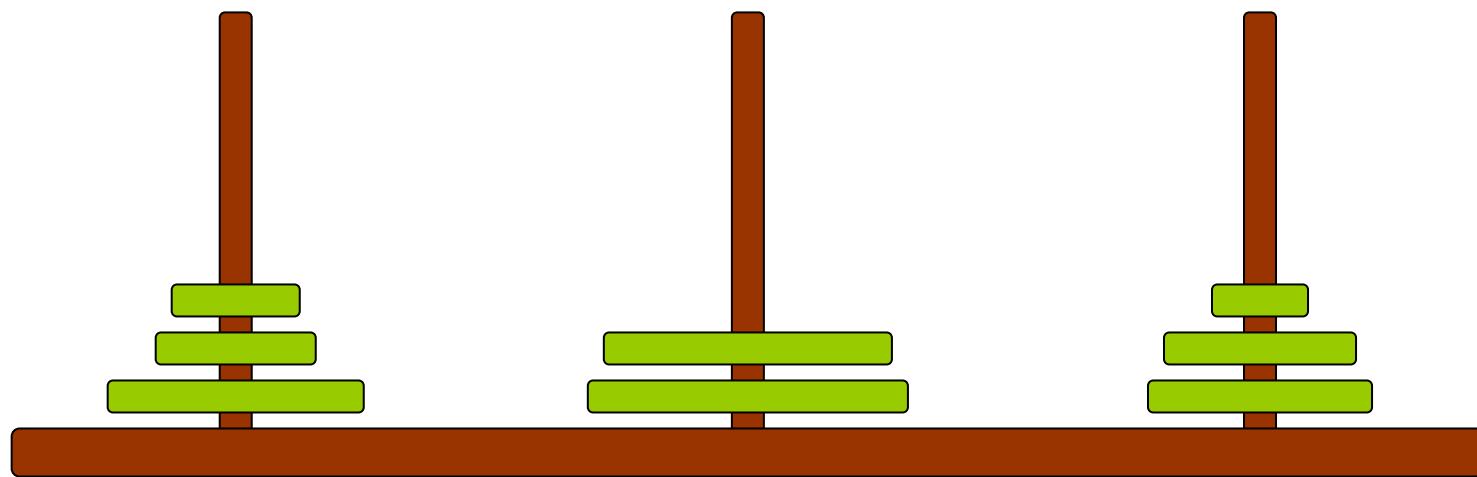


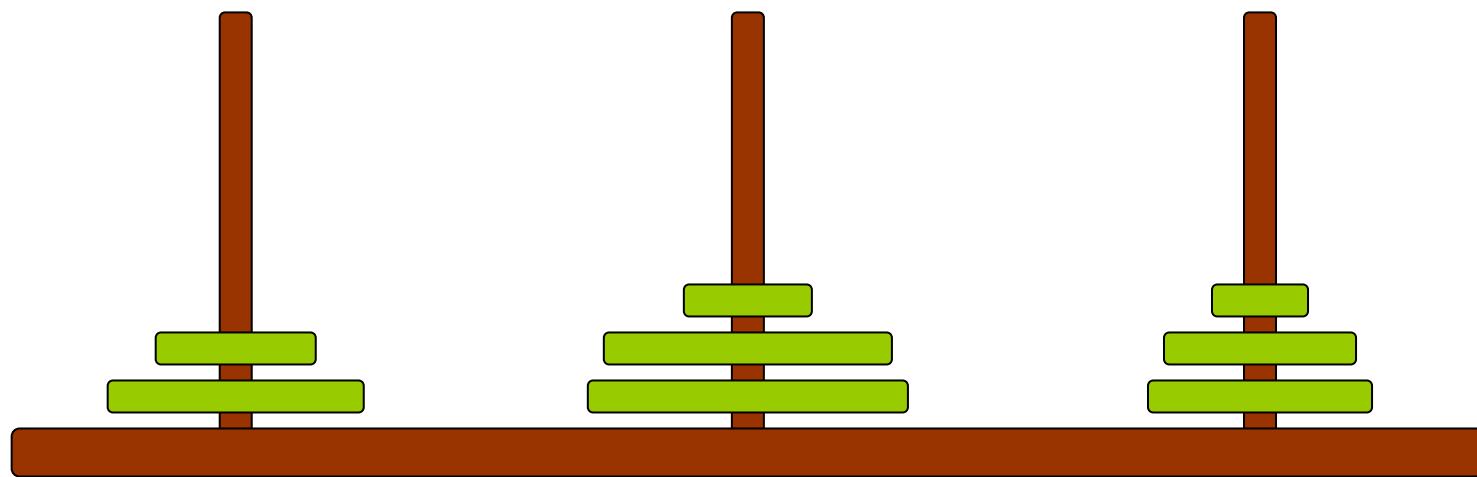


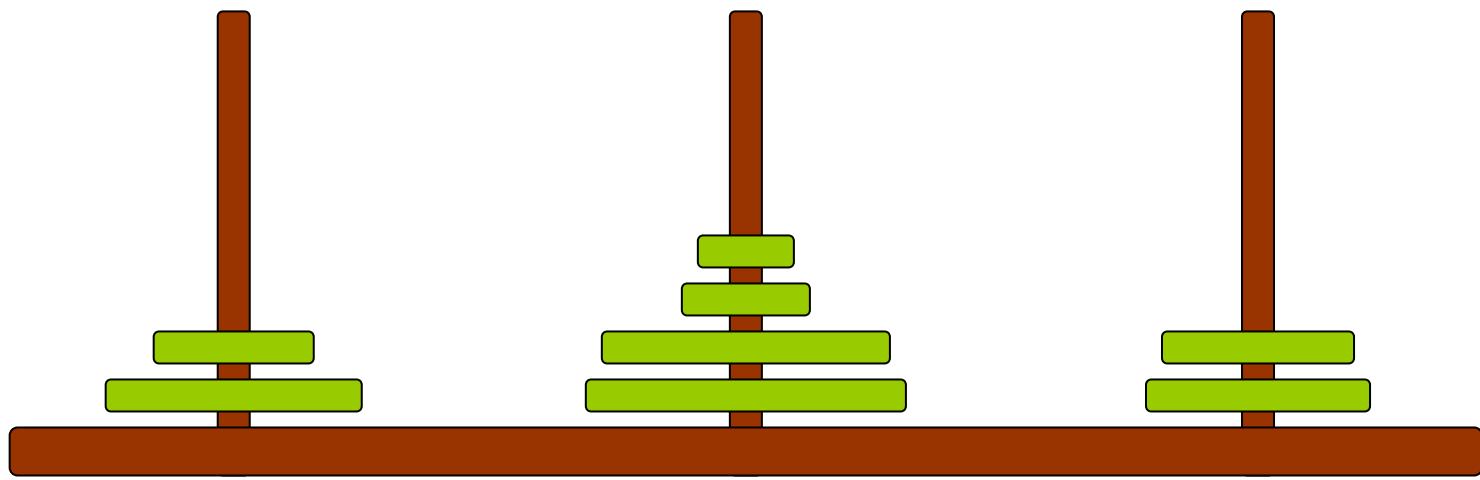


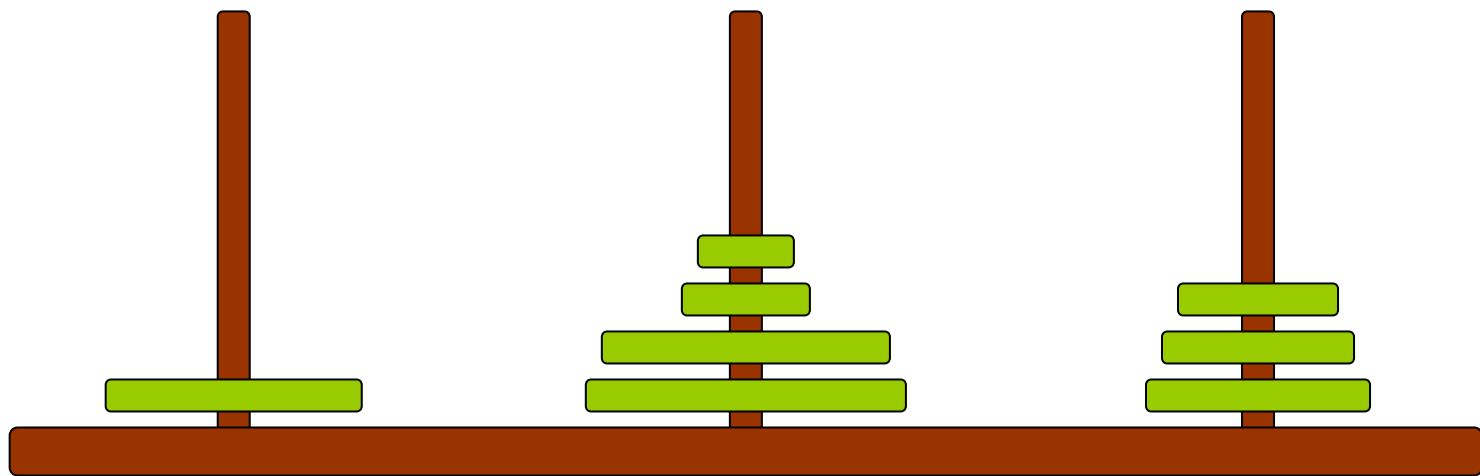


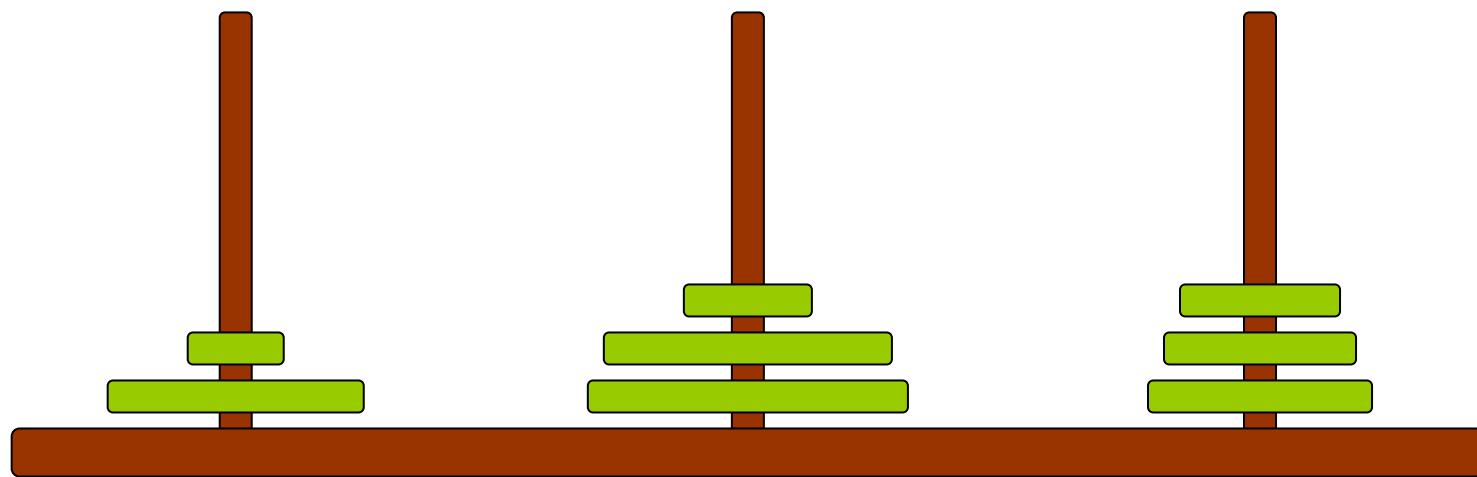


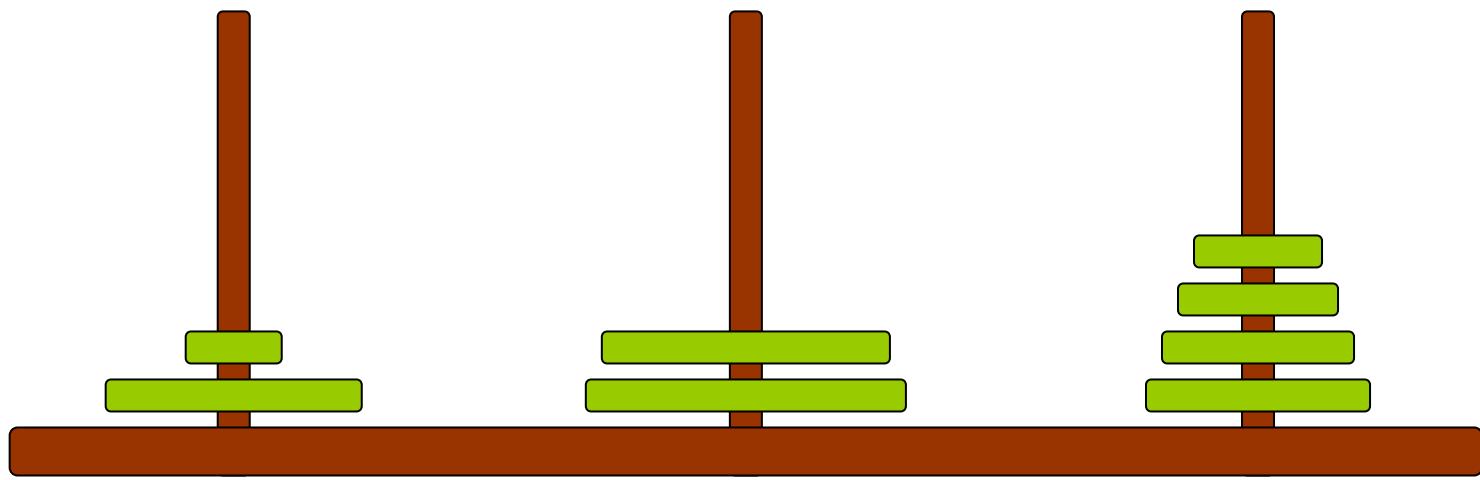


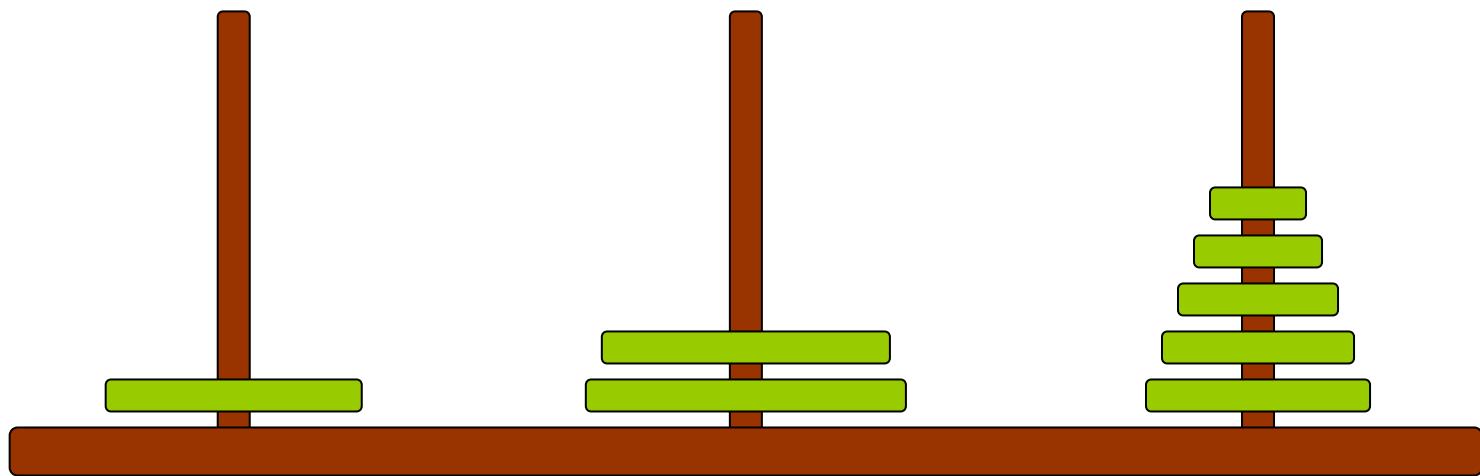


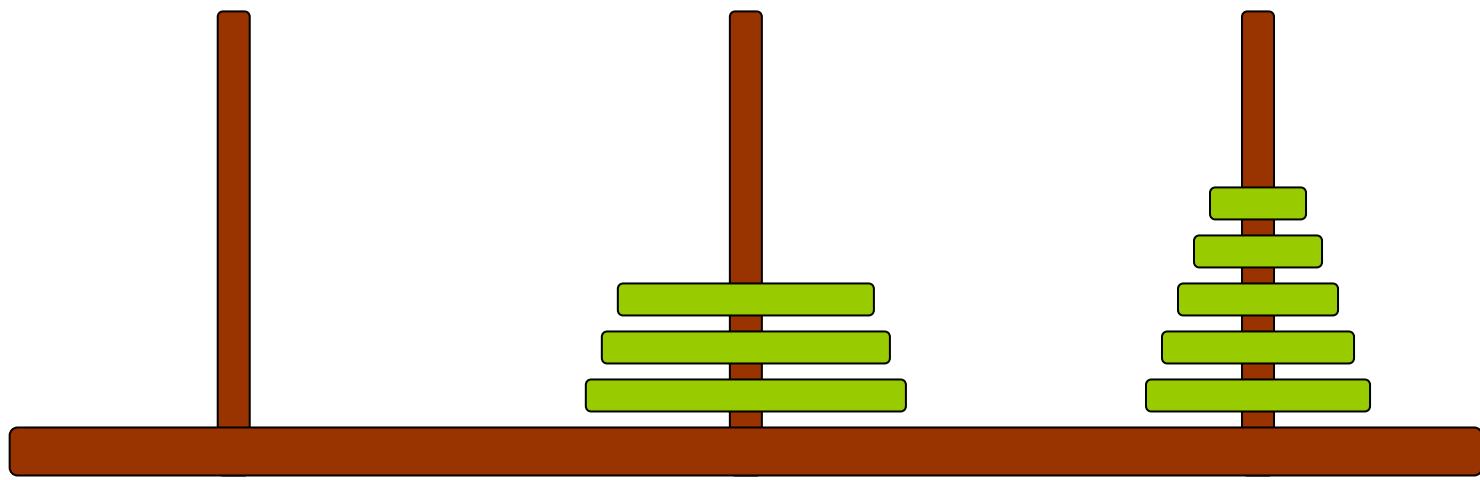


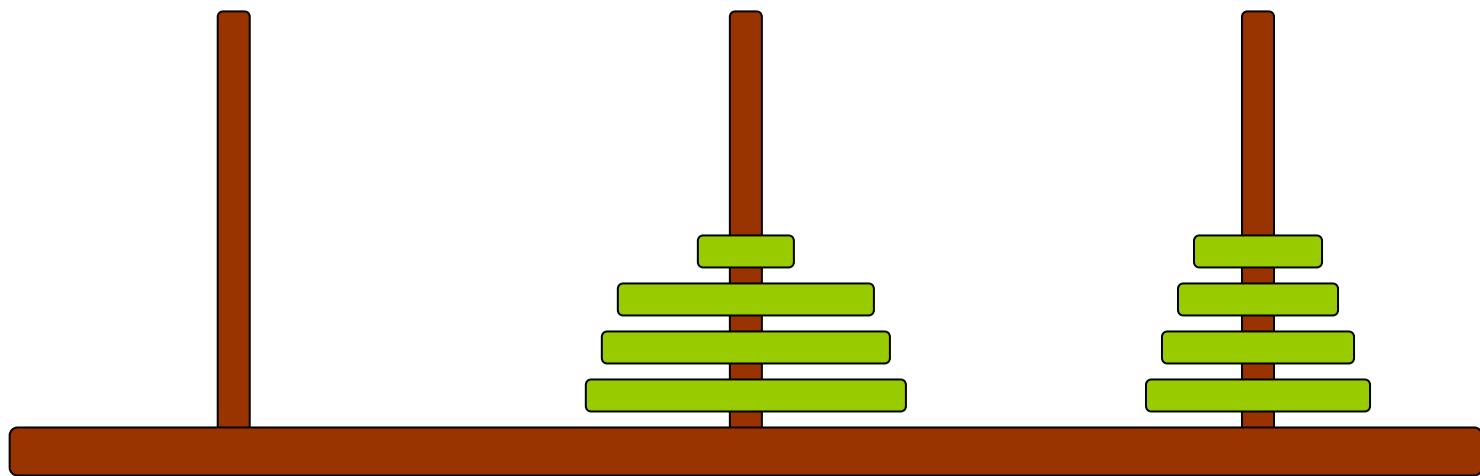


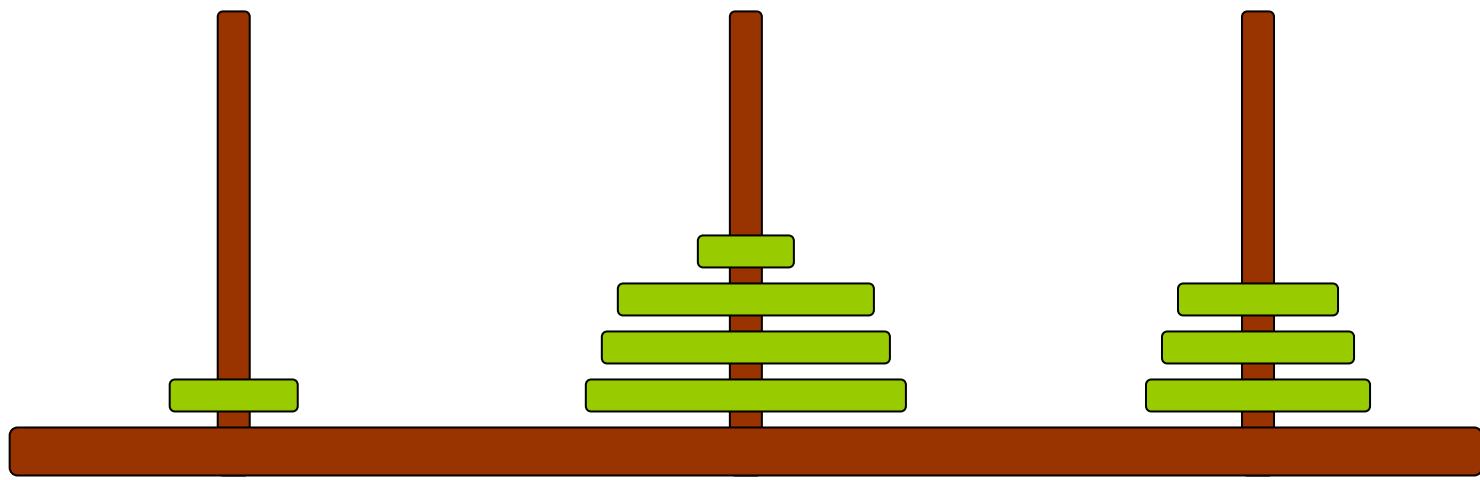


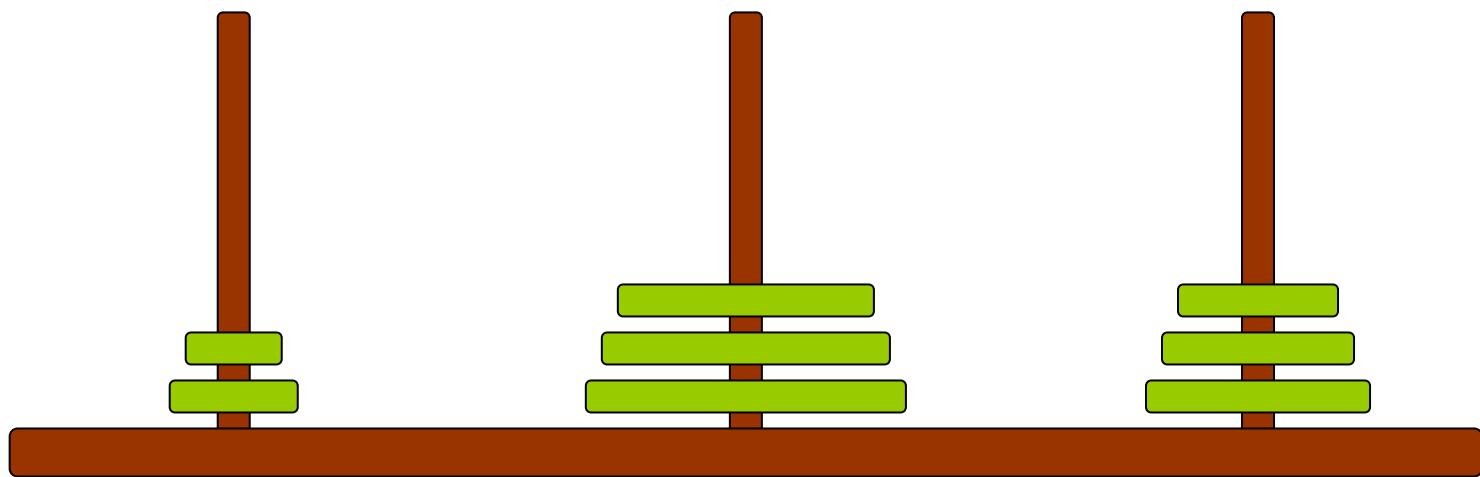


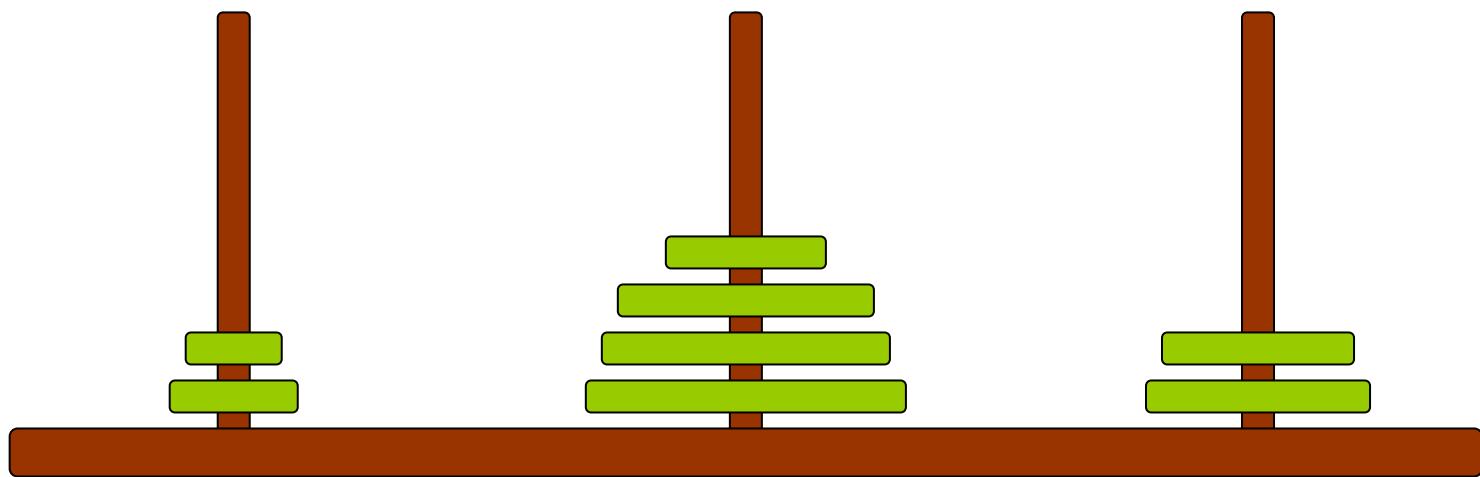


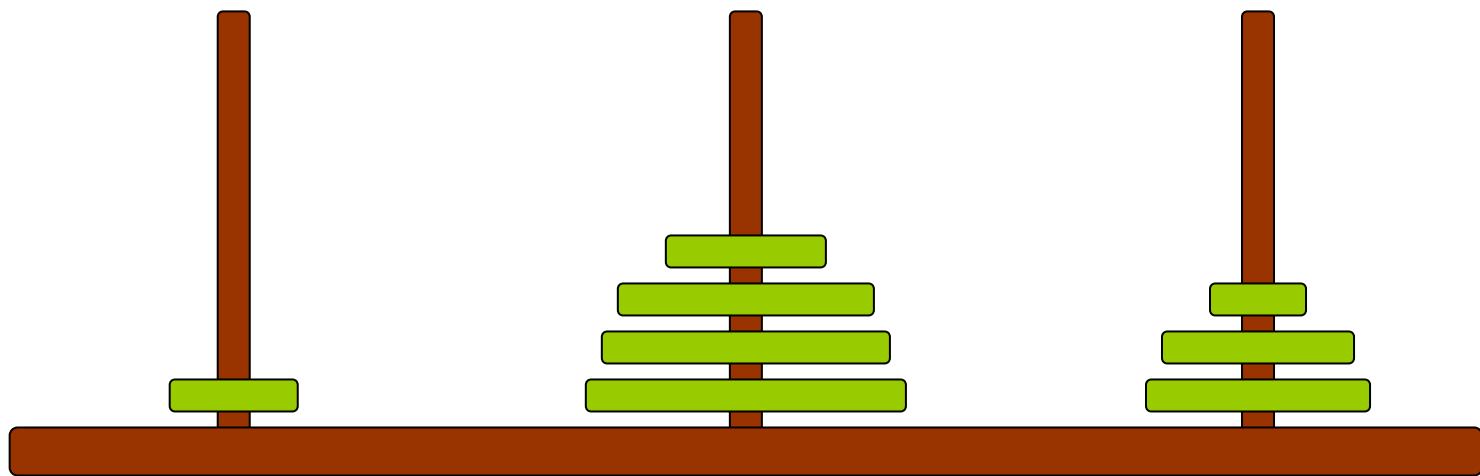


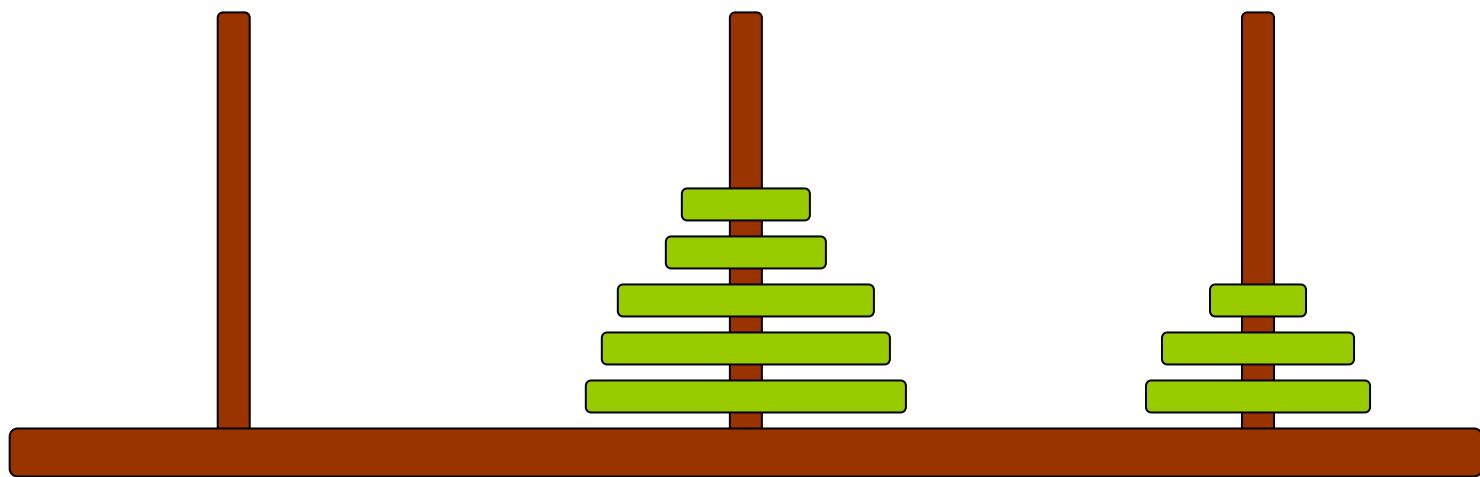


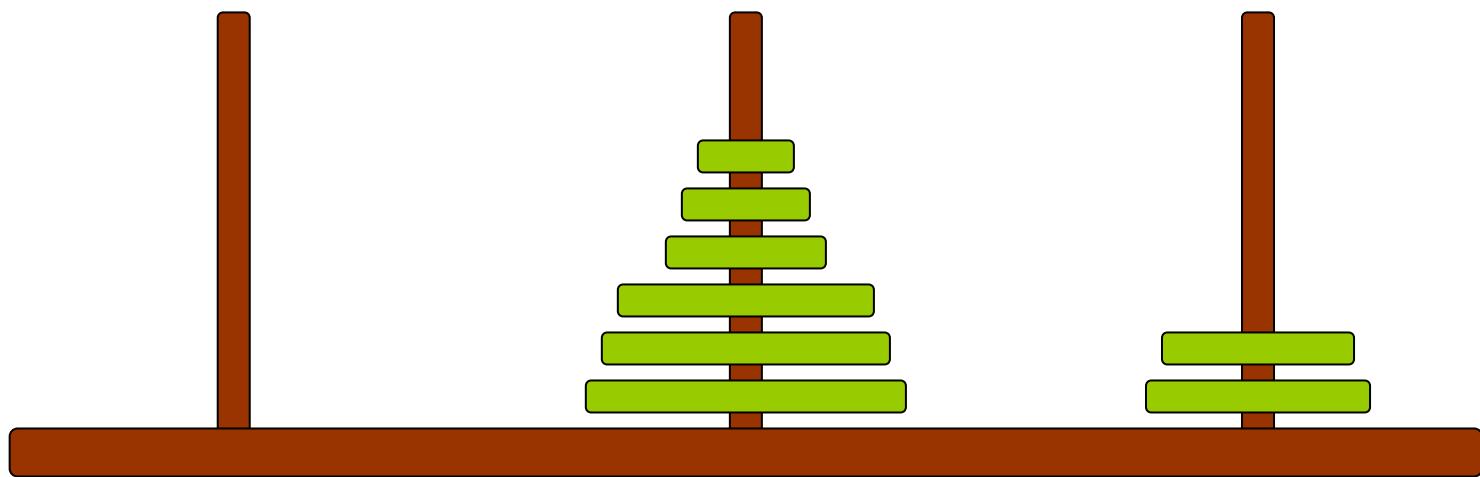


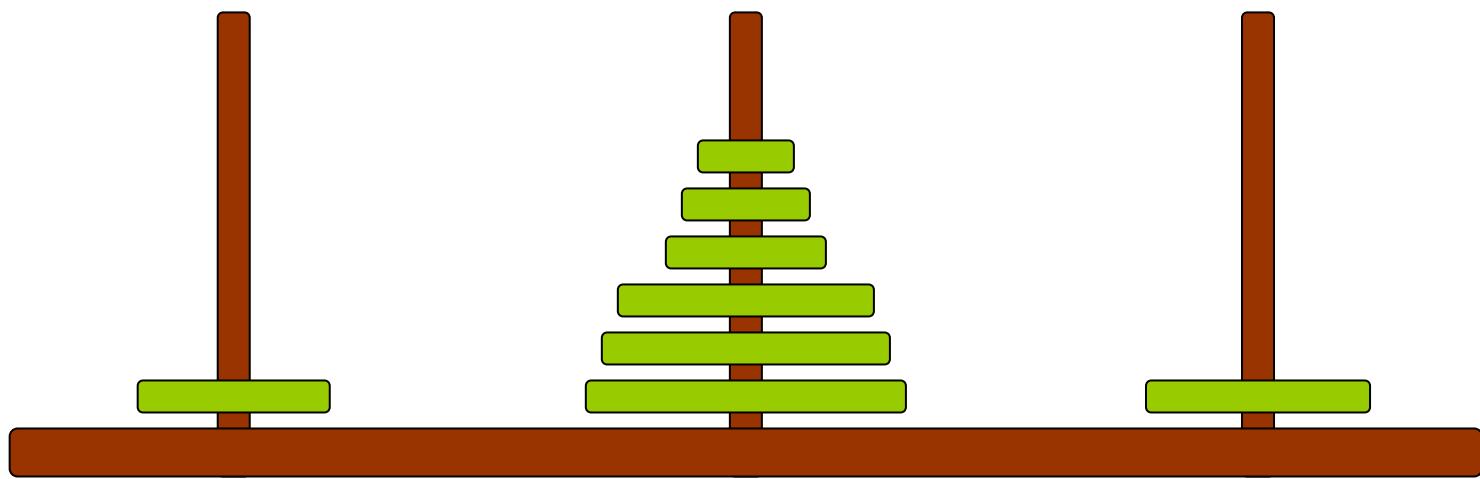


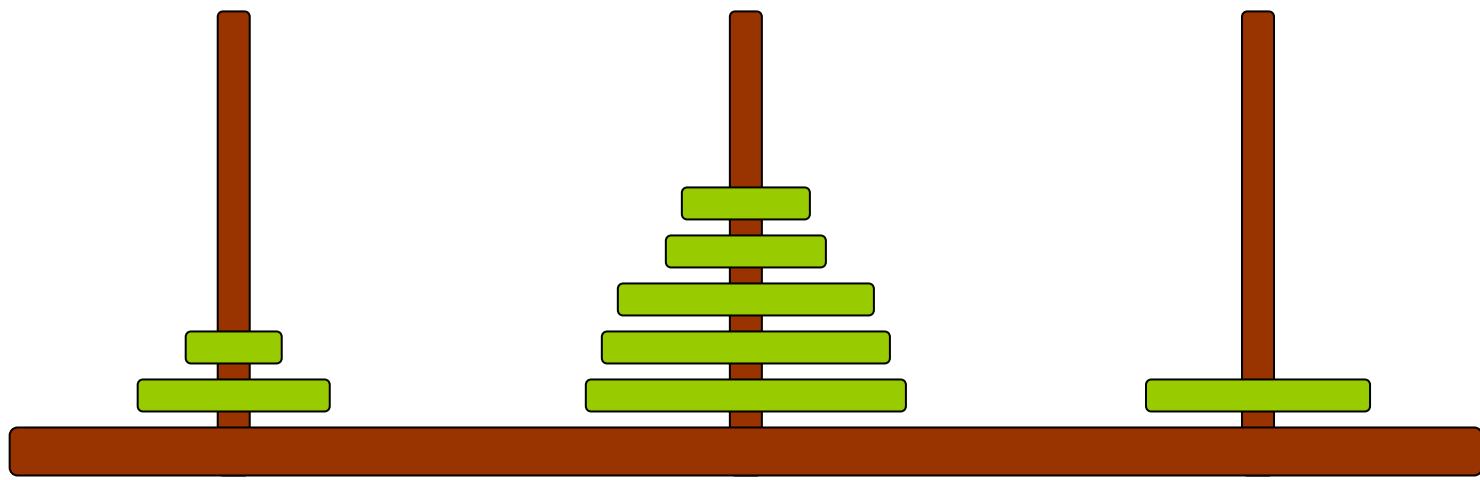


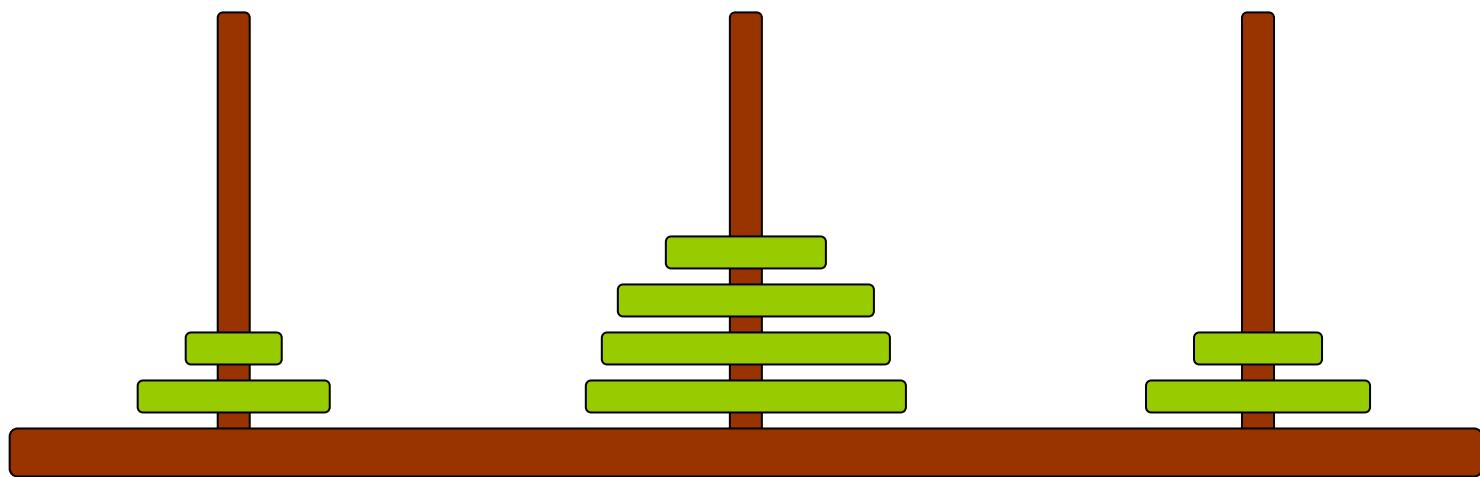


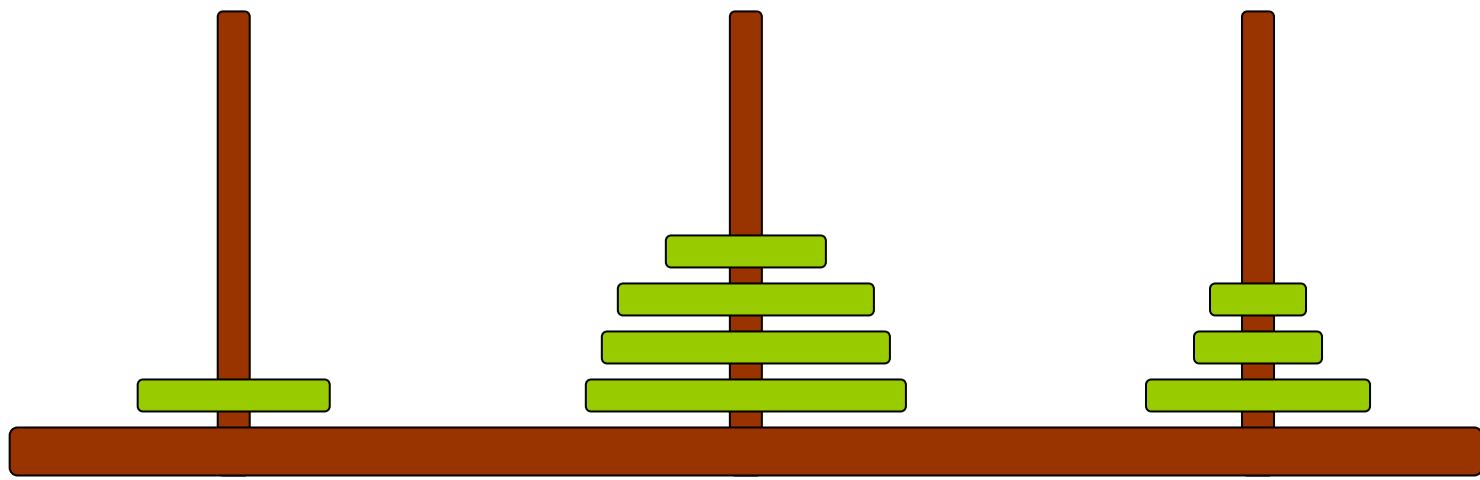


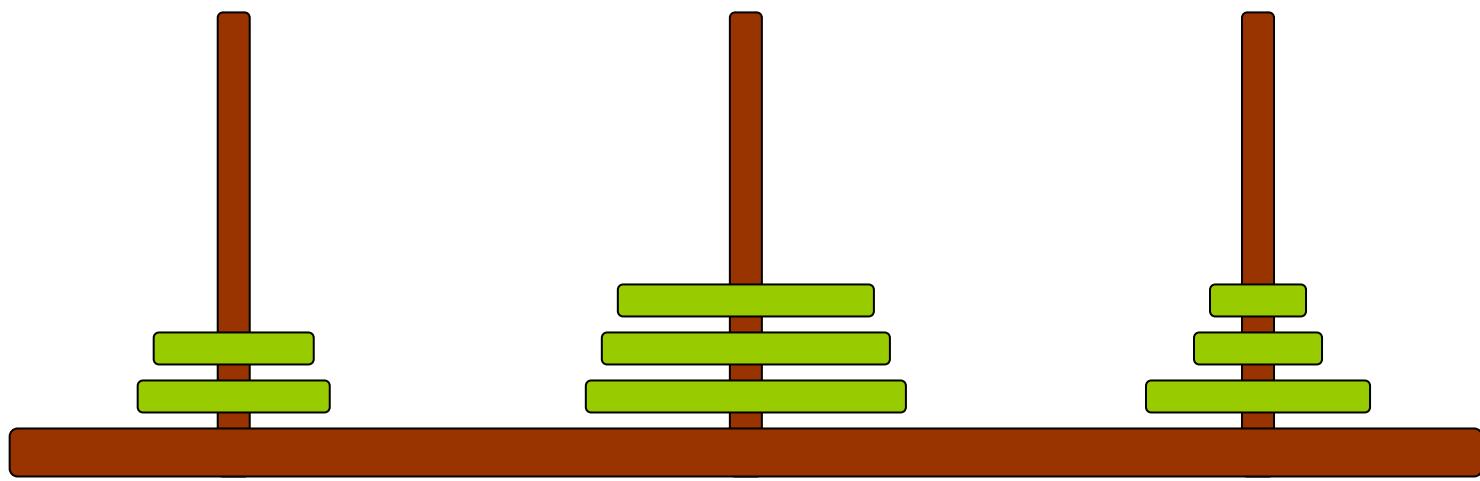


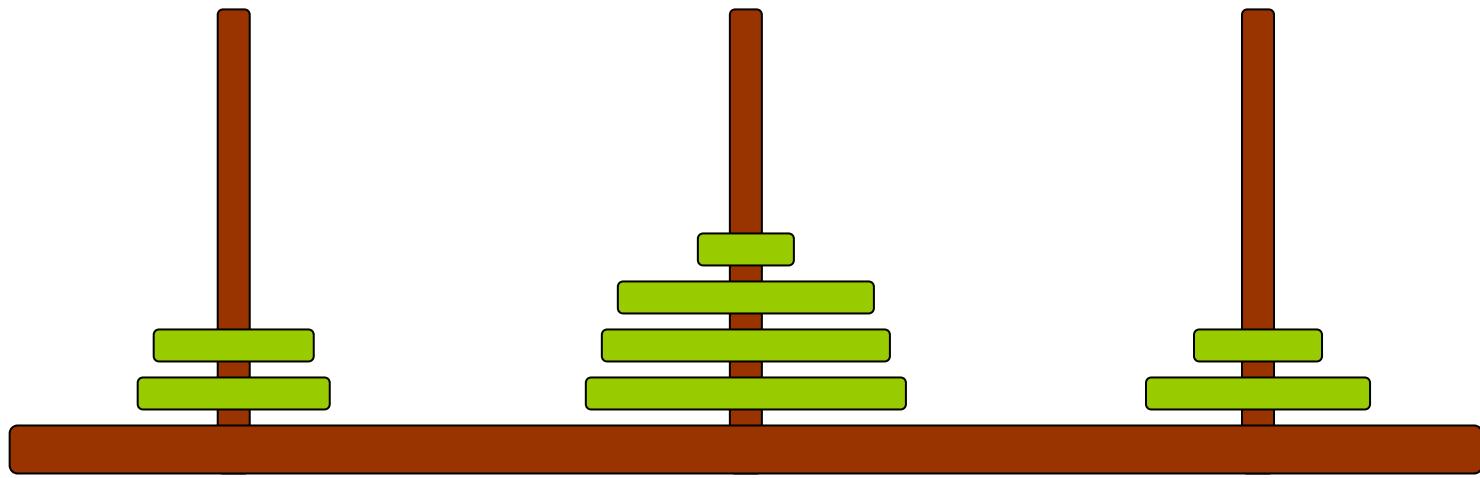


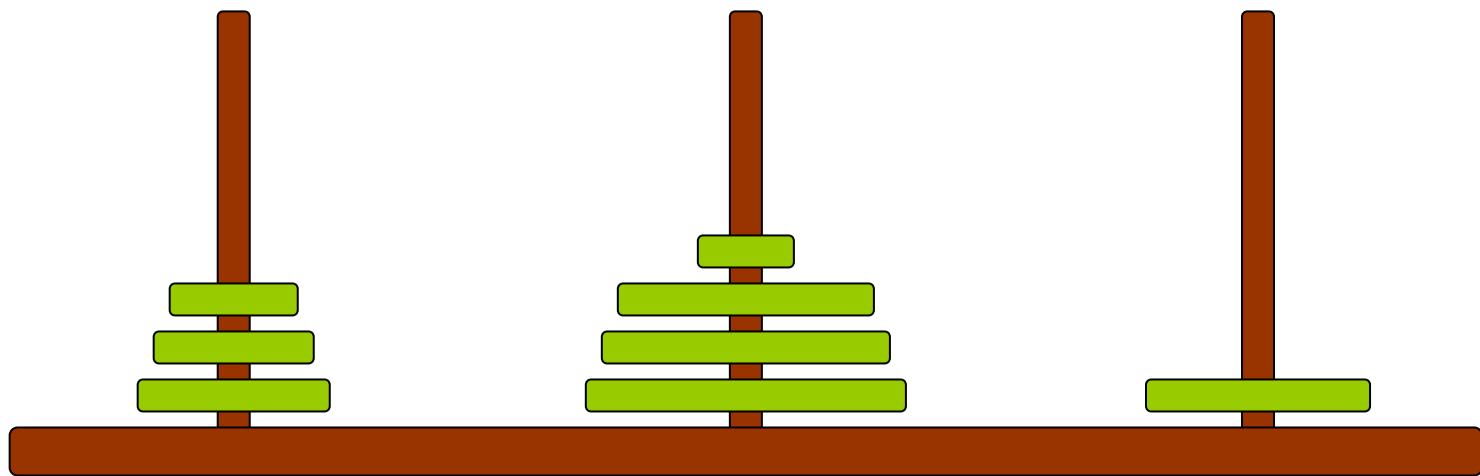


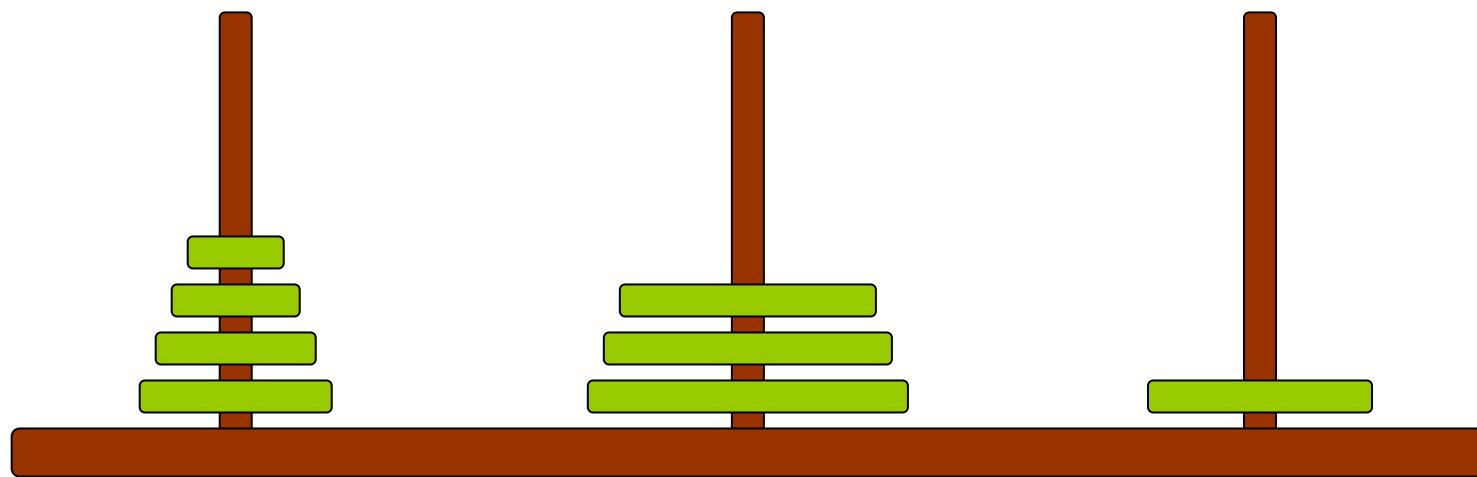


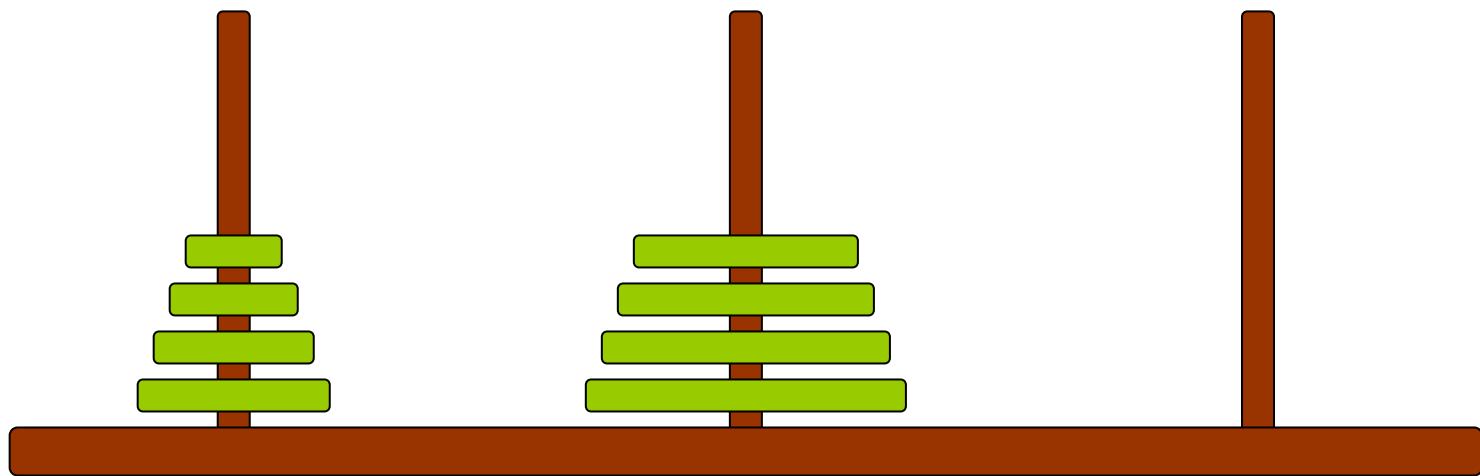


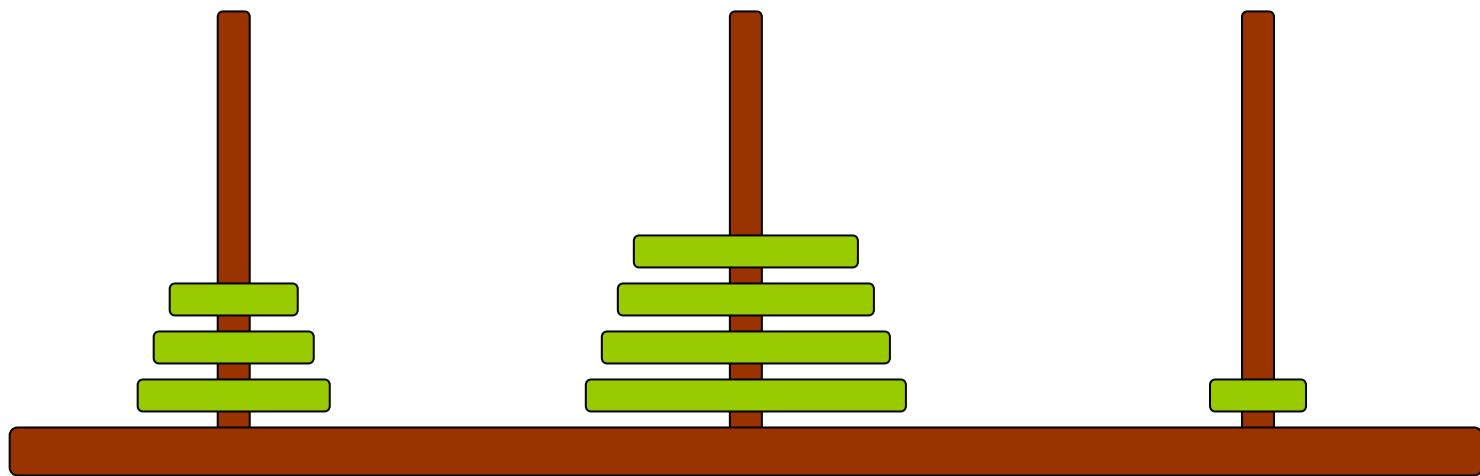


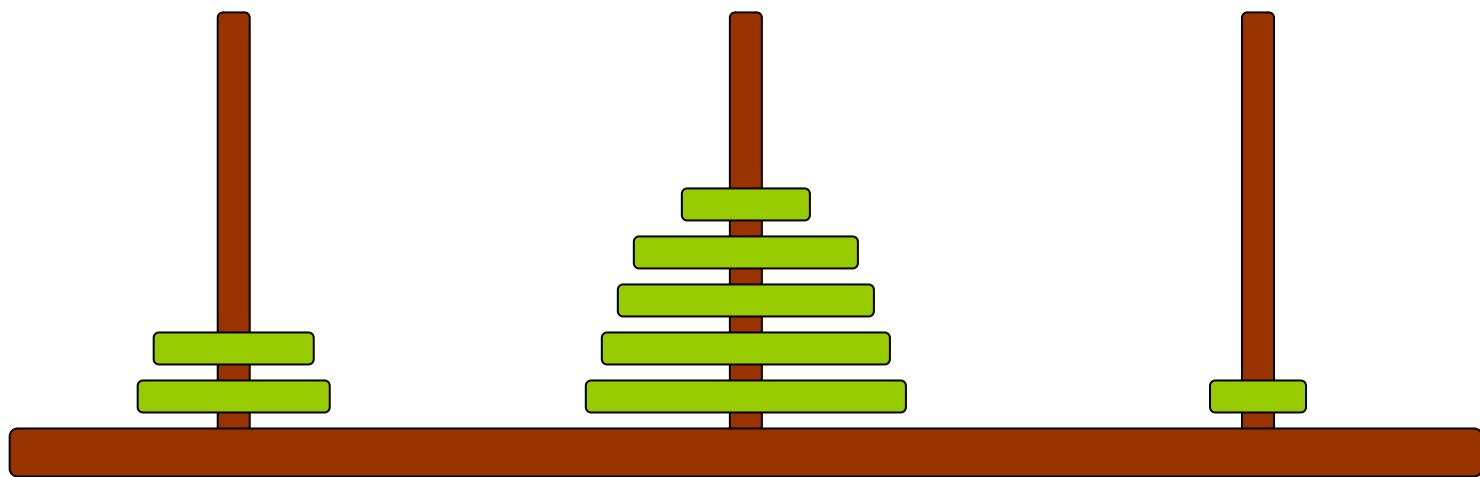


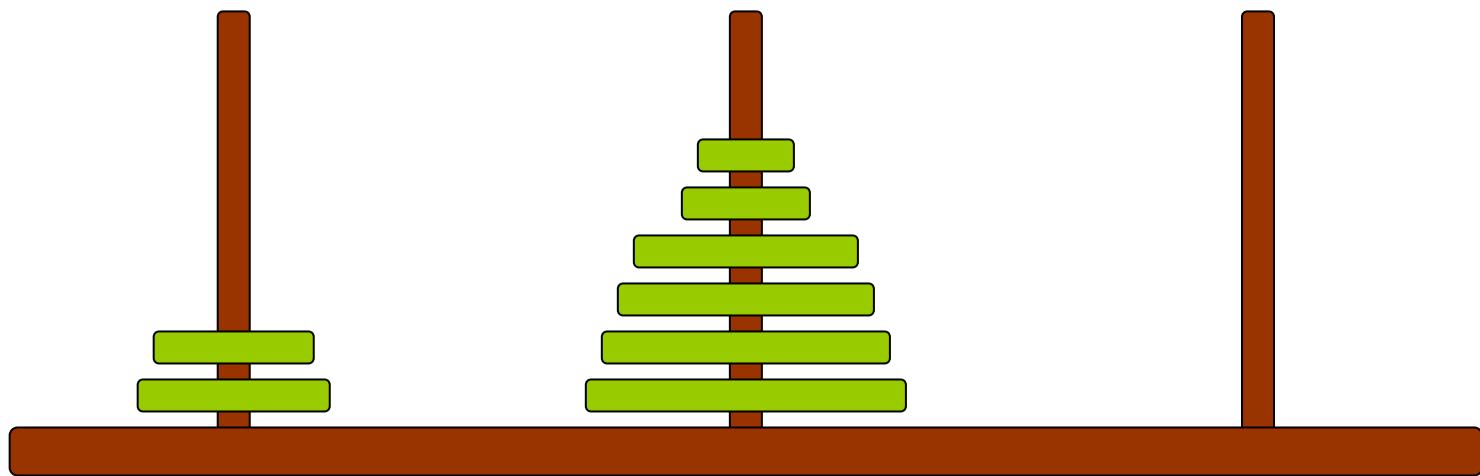


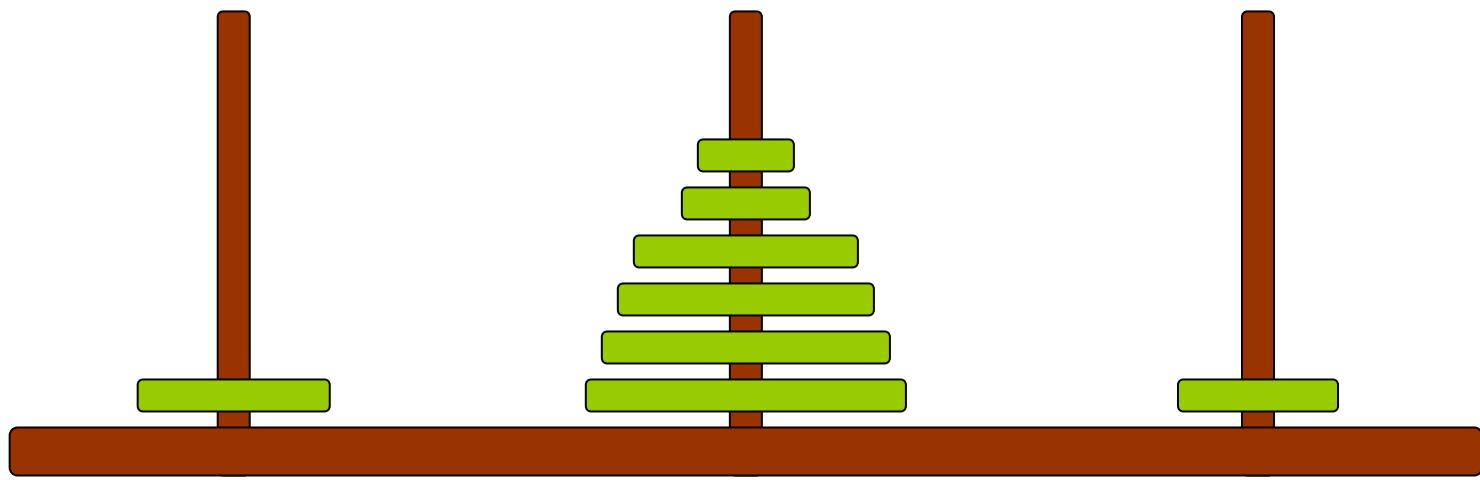


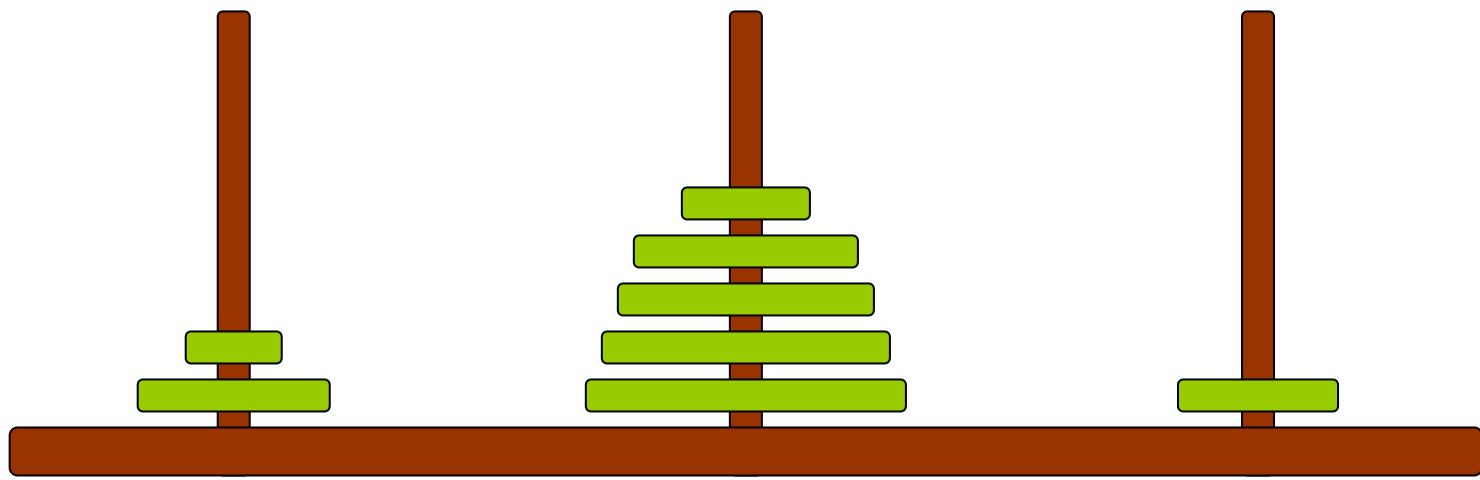


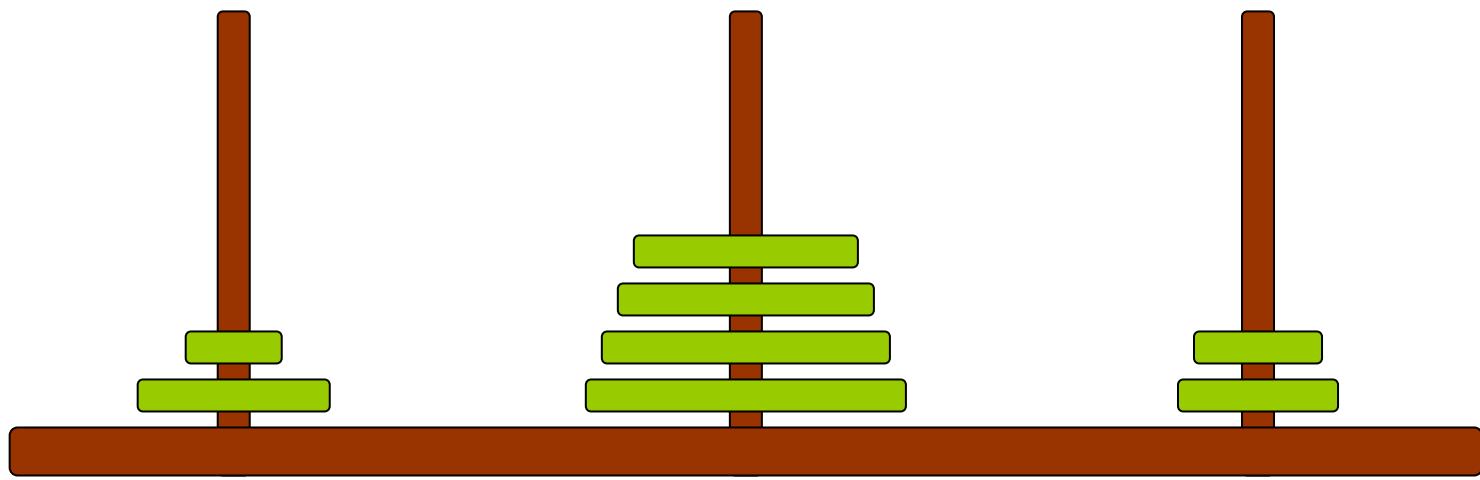


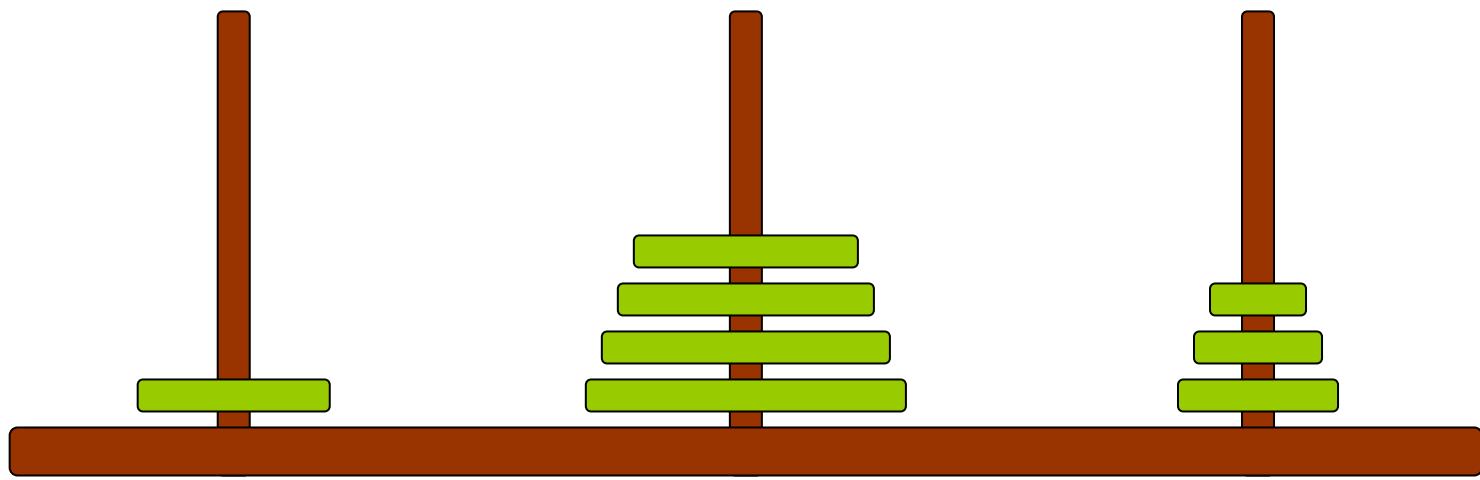


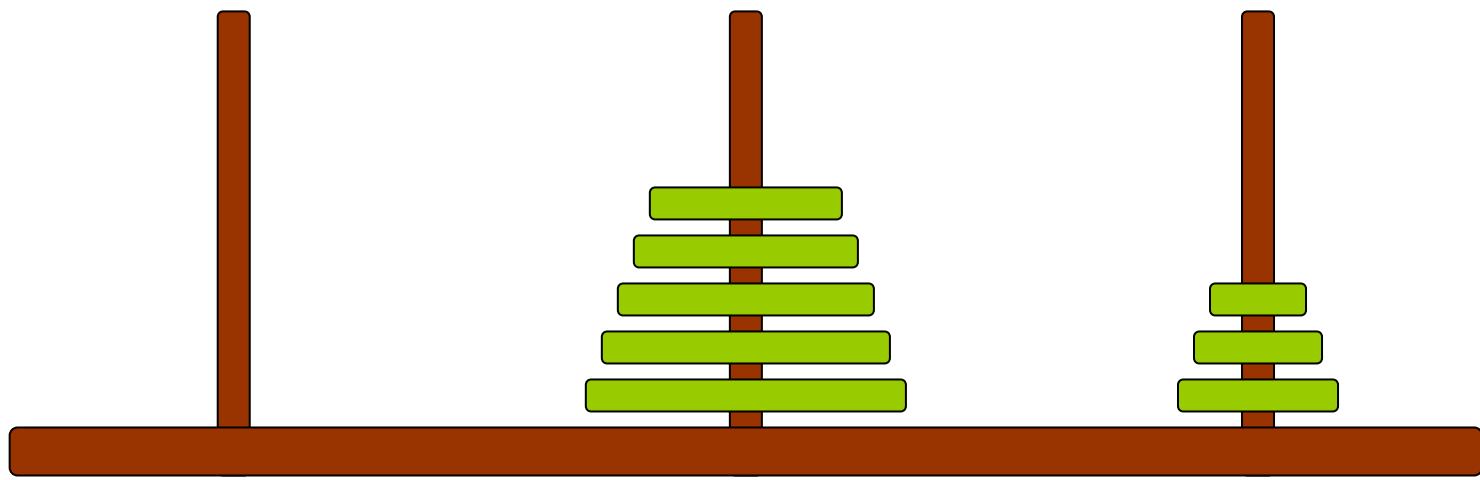


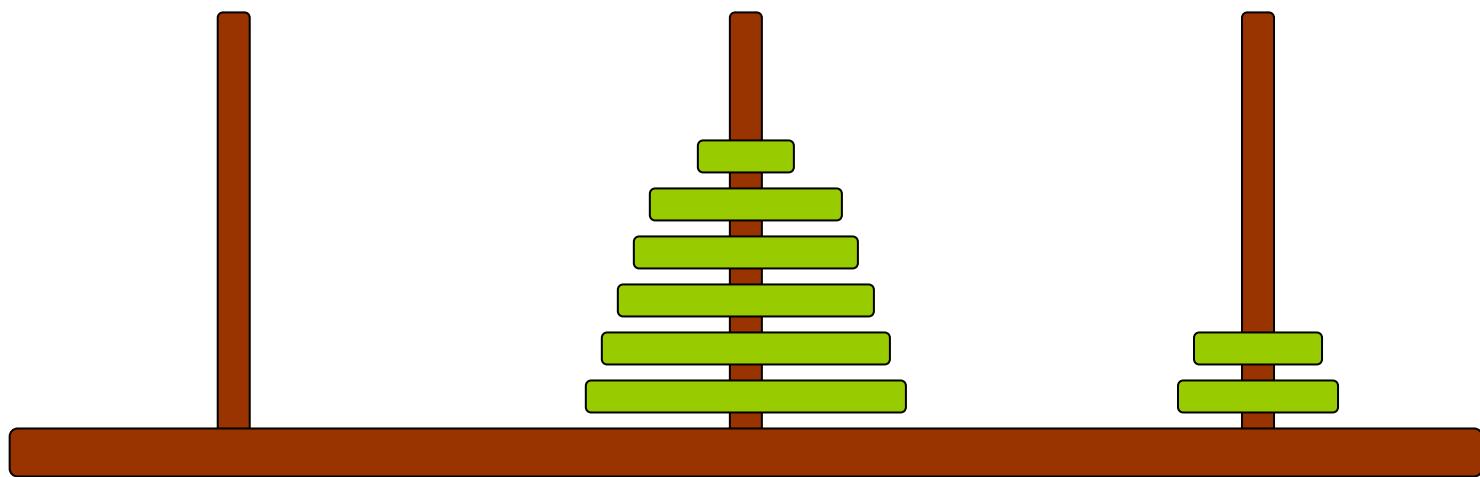


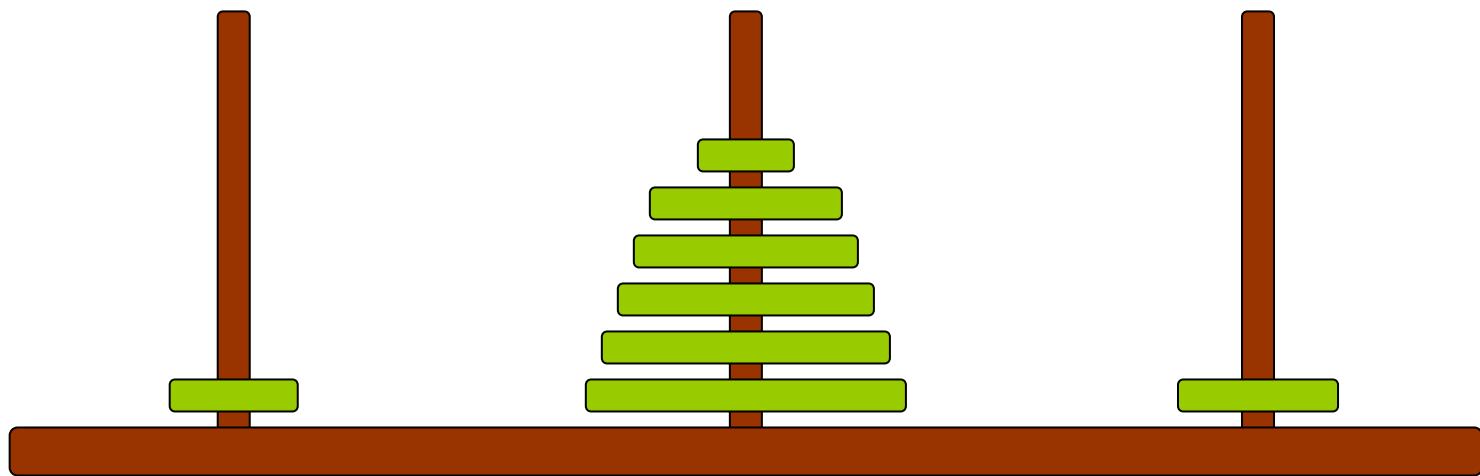


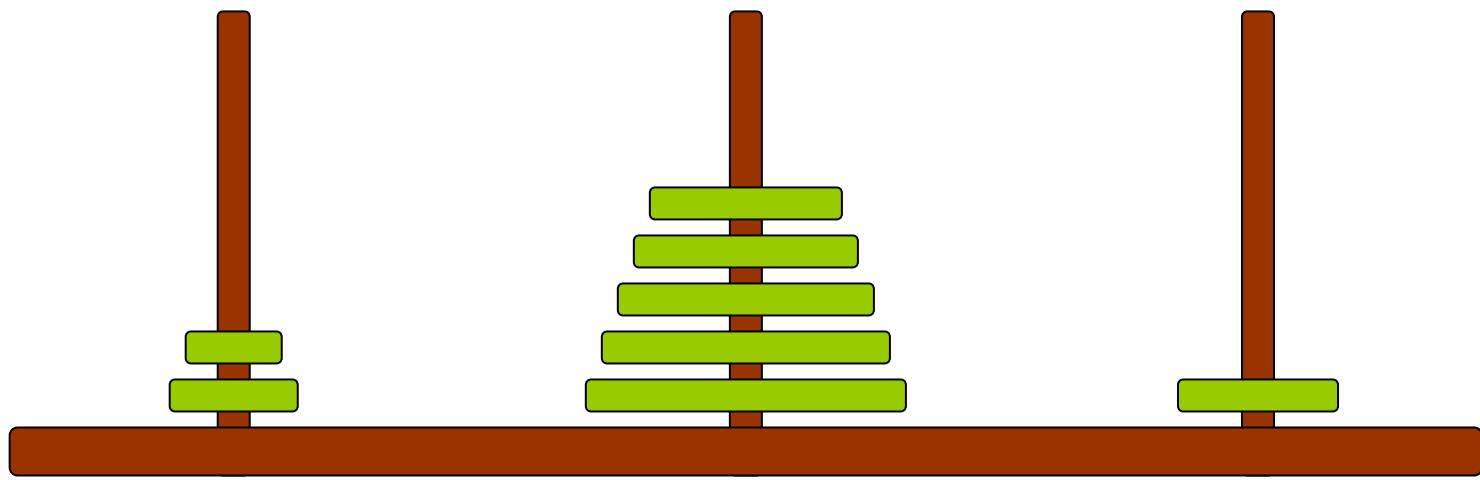


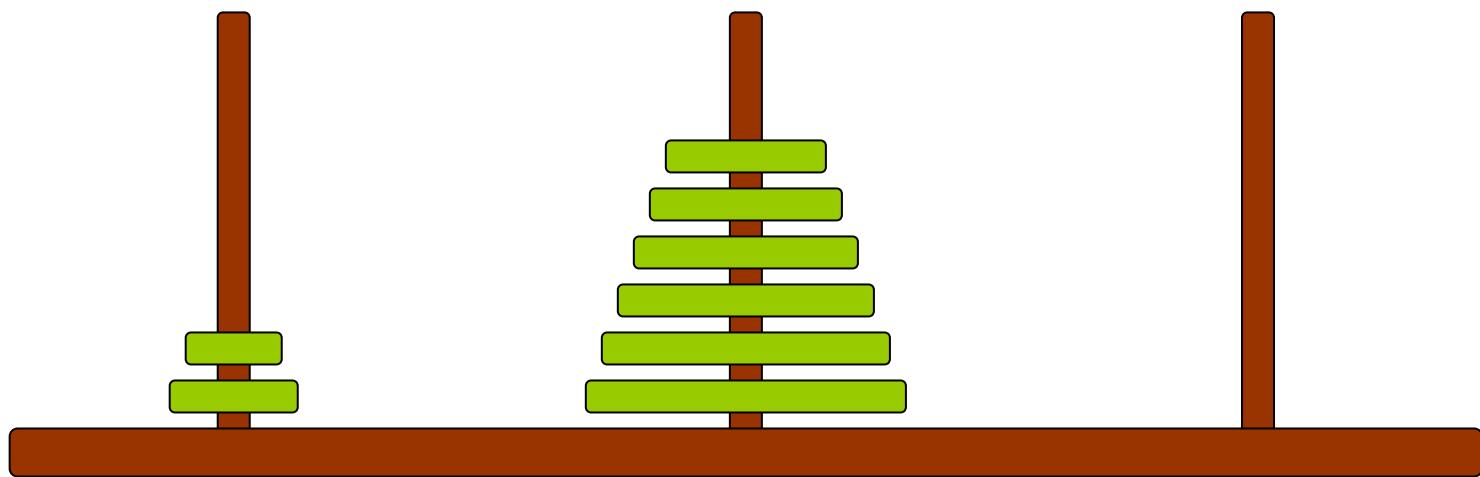


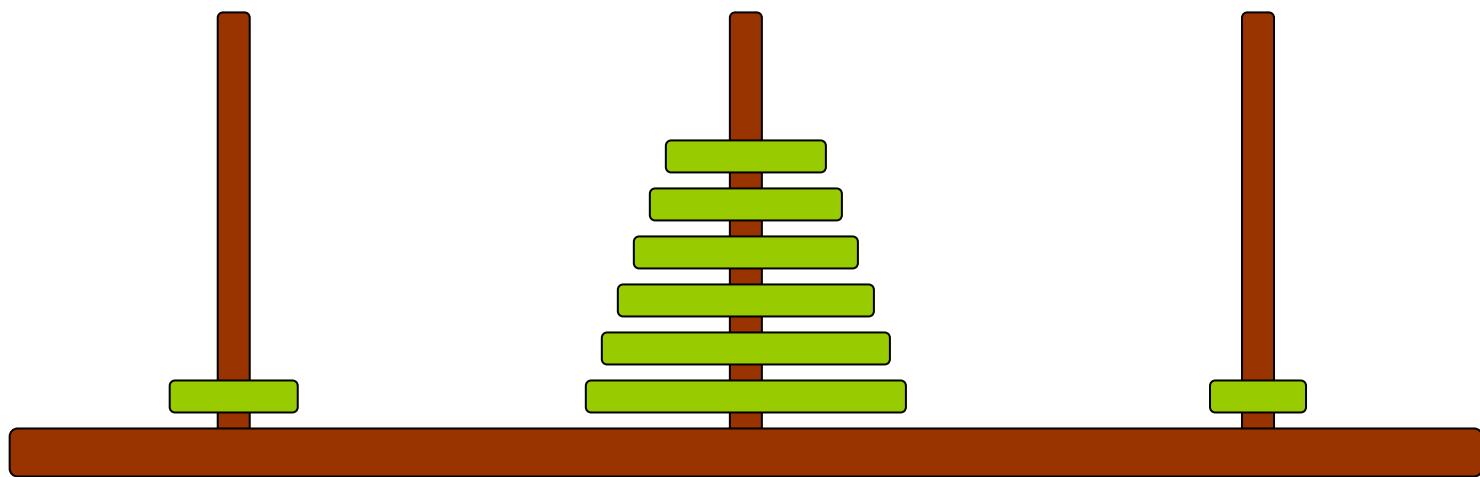


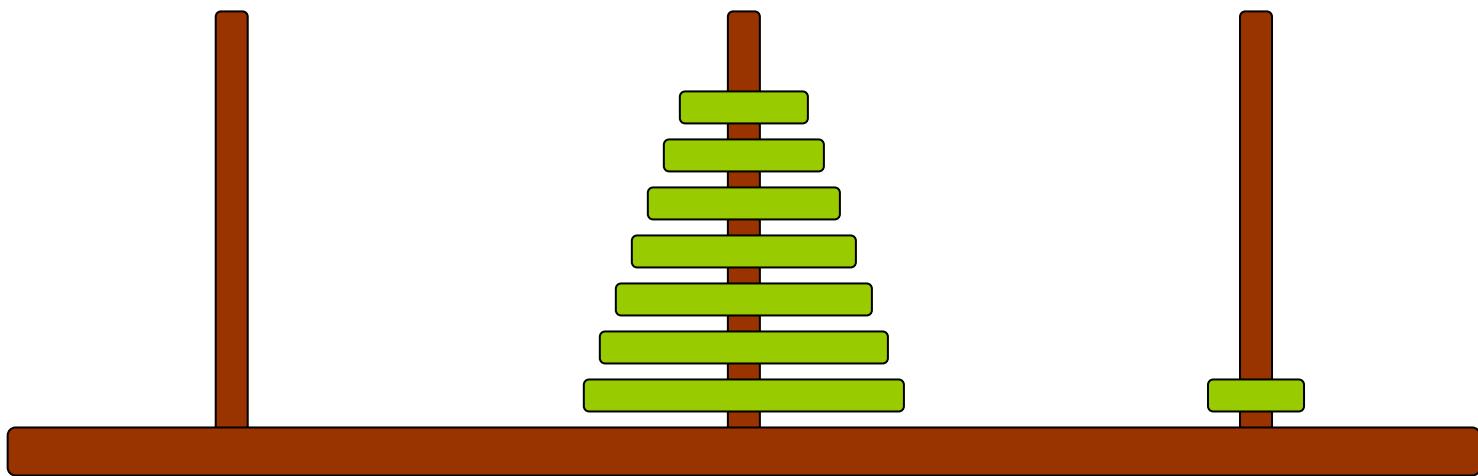


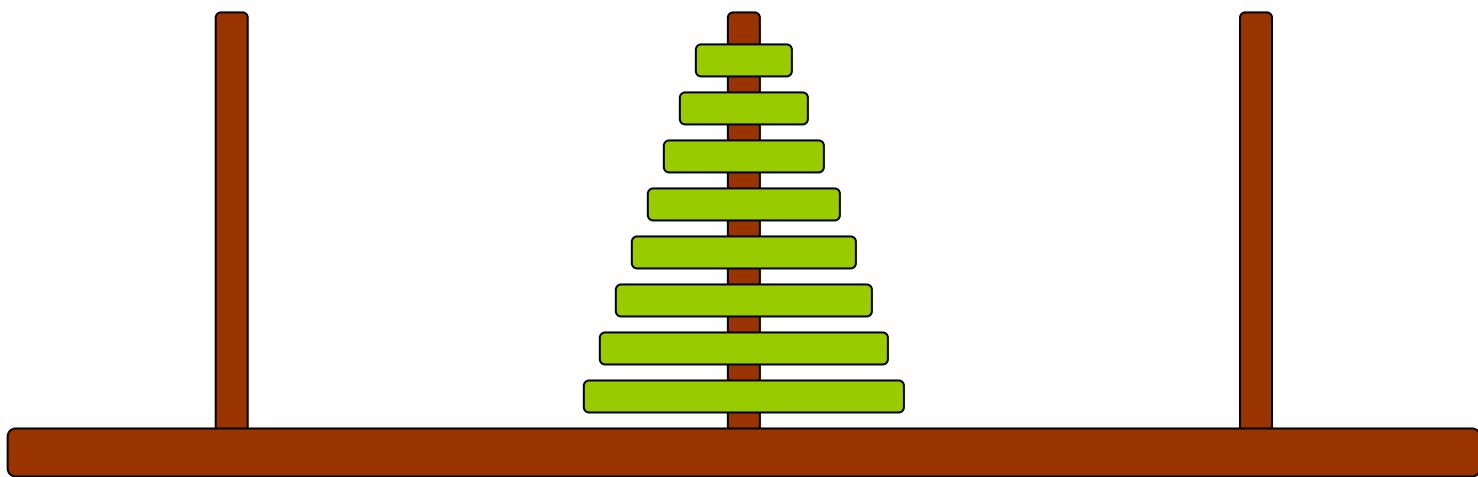














```
#include <stdio.h>

void deplace(int N,int source,int dest,int inter)
{
    if(N==1)
    {
        printf( "%d -> %d\n" ,source,dest );
        return;
    }
    deplace(N-1,source,inter,dest);
    printf( "%d -> %d\n" ,source,dest );
    deplace(N-1,inter,dest,source);
}

int main(void)
{
    deplace(8,0,1,2);
    return(0);
}
```