

Linked list is a dynamic data structure which can grow or shrink the allocated memory space during runtime. There are a variety of linked list. Stack can be view as a special type of linked list, where the value are pushed and popped on the top of the stack. Your goal is to write a program for establish stack by push, print the content of the stack by pop, and delete the stack by free.

**Requirement:** Use self-referential structure.

**Prohibited:** Static as well as dynamic array, any sorting methods for array.

**Input**

Each line contains an integer to be inputted, and input ends with an EOF marker.

**Output**

A reverse sequence of inputted values. Each line contains an integer.

**Sample Input**

6  
1  
4  
2  
3  
5

**Sample Output**

5  
3  
2  
4  
1  
6