```
//IntStack.java.
interface IntStack {
void push(int item); // store an item
int pop(); // retrieve an item
}
```

```
// FixedStack.class file
class FixedStack implements IntStack {
private int stck[];
private int tos;
// allocate and initialize stack
FixedStack(int size) {
stck = new int[size];
tos = -1;
}
// Push an item onto the stack
public void push(int item) {
if(tos==stck.length-1) // use length member
System.out.println("Stack is full.");
else
stck[++tos] = item;
}
// Pop an item from the stack
public int pop() {
if(tos < 0) {
System.out.println("Stack underflow.");
return 0;
}
else
return stck[tos--];
}
}
public class IFTest {
public static void main(String args[]) {
FixedStack mystack1 = new FixedStack(5);
FixedStack mystack2 = new FixedStack(8);
// push some numbers onto the stack
for(int i=0; i<5; i++) mystack1.push(i);
for(int i=0; i<8; i++) mystack2.push(i);
// pop those numbers off the stack
System.out.println("Stack in mystack1:");
for(int i=0; i<5; i++)
System.out.println(mystack1.pop());
System.out.println("Stack in mystack2:");
for(int i=0; i<8; i++)
System.out.println(mystack2.pop());
}
}
```

<u>Output:</u>

```
Stack in mystack1:
4
3
2
1
0
Stack in mystack2:
7
6
5
4
```

3

2

1

0