

(a) Develop an interface for integer stack with the following methods:

StackADT

```
void push ( int value ) // adds value to list appropriately for a stack
int pop ()              // remove and return value from list
boolean isEmpty()       // returns true if the stack is empty
int size()              // returns number of items in stack
```

(b) Develop an interface for a Set with the following methods:

SetADT

```
void add(Object o)      // adds an object to the set.
void remove(Object o)   // removes object o from the set.
void intersection(SetADT s) // sets this set to the intersection of itself and s.
void difference(SetADT s) // sets this set to the difference between itself and s.
int size()              // returns the number of objects in the set.
boolean isEmpty()       // returns true if size = 0, else false.
```

You should hand in the code listings only.