

Function Pointer at C/C++ with similar implementation in JAVA

```
int iListLength = 0;
int combine(int iList[], int (*func)(int, int))
{
    int result = iList[0];
    for(int i = 1; i < iListLength; i++)
        result = func(result,iList[i]);
    return result;
}
int add(int a, int b)
{
    return a+b;
}
int mul(int a, int b)
{
    return a*b;
}
int main()
{
    int iList[] = {1, 2, 3, 4, 5};
    iListLength = 5;
    cout<<"The sum of iList is "<<combine(iList,add)<<endl;
    cout<<"The product of iList is "<<combine(iList, mul)<<endl;
}

package tester;
public class Tester {
    public static void main(String[] args) {
        int iList[] = {1,2,3,4,5};

        System.out.println("The sum of iList is "+combine(iList,new Adder()));
        System.out.println("The product of iList is "+combine(iList, new Multiplier()));
    }

    public static int combine(int iList[], Func1 funcHolder)
    {
        int result = iList[0];

        for(int i = 1; i < iList.length; i++)
            result = funcHolder.func(result, iList[i]);

        return result;
    }
}
```

```
    }  
  }  
  interface Funcl  
  {  
    int func(int first, int second);  
  }  
  class Adder implements Funcl  
  {  
    public int func(int first, int second) {  
      return first+second;  
    }  
  }  
  class Multiplier implements Funcl  
  {  
    public int func(int first, int second) {  
      return first*second;  
    }  
  }  
}
```