ARRAY

use vector with hash
set in stl for direct find

https://www.geeksforgeeks.org/count-possible-decodings-given-digit-sequence/

KMP algorithm pattern repetition

- Kadane's algorithm
- leaders-in-an-array

Dutch-National Flag Algo
http://www.geeksforgeeks.org/three-way-partitioning-of-an-array-around-a-given-range/

Reverse array: (ArBr)r

http://www.geeksforgeeks.org/find-maximum-value-of-sum-iarri-with-only-rotations-on-given-array-allowed/

Max sum with rotations: sumarr - (n)arr[n-j]

http://www.geeksforgeeks.org/maximize-sum-consecutive-differences-circular-array/

http://www.geeksforgeeks.org/sorted-subsequence-size-3-linear-time-using-constant-space/

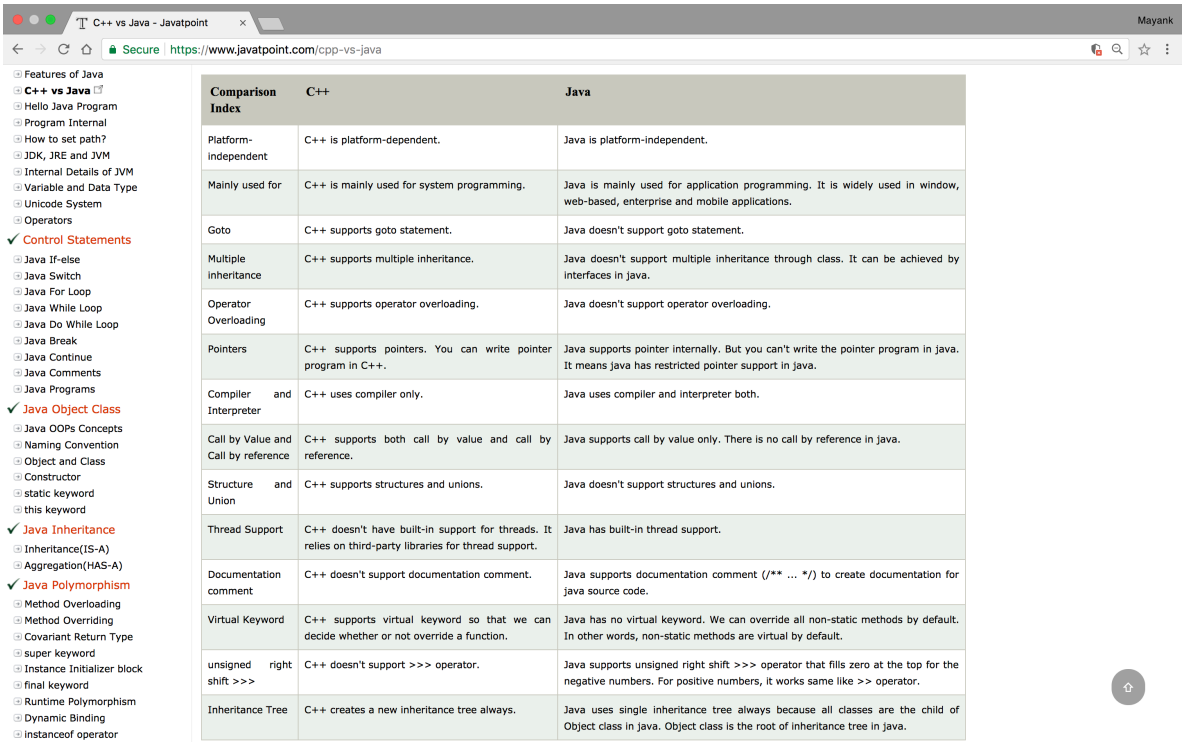
****http://www.geeksforgeeks.org/largest-subarray-with-equal-number-of-0s-and-1s/

###https://practice.geeksforgeeks.org/problems/largest-subarray-with-0-sum/1

Number Theory

1. Modular Exponentiation
2. Modular multiplicative inverse
3. Primality Test | Set 2 (Fermat Method)

4. Euler's Totient Function
5. Sieve of Eratosthenes
6. Convex Hull
7. Basic and Extended Euclidean algorithms
8. Segmented Sieve
9. Chinese remainder theorem
10. Lucas Theorem



Comparison Index	C++	Java
Platform-independent	C++ is platform-dependent.	Java is platform-independent.
Mainly used for	C++ is mainly used for system programming.	Java is mainly used for application programming. It is widely used in window, web-based, enterprise and mobile applications.
Goto	C++ supports goto statement.	Java doesn't support goto statement.
Multiple inheritance	C++ supports multiple inheritance.	Java doesn't support multiple inheritance through class. It can be achieved by interfaces in java.
Operator Overloading	C++ supports operator overloading.	Java doesn't support operator overloading.
Pointers	C++ supports pointers. You can write pointer program in C++.	Java supports pointer internally. But you can't write the pointer program in java. It means java has restricted pointer support in java.
Compiler and Interpreter	C++ uses compiler only.	Java uses compiler and interpreter both.
Call by Value and Call by reference	C++ supports both call by value and call by reference.	Java supports call by value only. There is no call by reference in java.
Structure and Union	C++ supports structures and unions.	Java doesn't support structures and unions.
Thread Support	C++ doesn't have built-in support for threads. It relies on third-party libraries for thread support.	Java has built-in thread support.
Documentation comment	C++ doesn't support documentation comment.	Java supports documentation comment (/** ... */) to create documentation for java source code.
Virtual Keyword	C++ supports virtual keyword so that we can decide whether or not override a function.	Java has no virtual keyword. We can override all non-static methods by default. In other words, non-static methods are virtual by default.
unsigned right shift >>>	C++ doesn't support >>> operator.	Java supports unsigned right shift >>> operator that fills zero at the top for the negative numbers. For positive numbers, it works same like >> operator.
Inheritance Tree	C++ creates a new inheritance tree always.	Java uses single inheritance tree always because all classes are the child of Object class in java. Object class is the root of inheritance tree in java.