## Find maximum sum possible equal sum of three stacks

将数组视为栈,允许通过出栈操作找到三个栈和最大且相等的值

- 1. 获取三个栈各自的总和
- 2. 如果这个三个总和相等,直接返回
- 3. 否则,和最大的那个栈栈顶出栈,并减去相应的值,转至步骤2

```
#include <bits/stdc++.h>
using namespace std;
int maxEqual(vector<int> &s1, vector<int> &s2, vector<int> &s3) {
    if (s1.empty() || s2.empty() || s3.empty()) return 0;
   int sum1 = 0, sum2 = 0, sum3 = 0;
   for (int n1: s1) sum1 += n1;
   for (int n2: s2) sum2 += n2;
    for (int n3: s3) sum3 += n3;
   int top1 = 0, top2 = 0, top3 = 0;
    while (sum1 != sum2 && sum2 != sum3) {
        if (max(sum1, max(sum2, sum3)) == sum1) {
            sum1 -= s1[top1++];
        } else if (max(sum1, max(sum2, sum3)) == sum2) {
            sum2 -= s2[top2++];
        } else if (max(sum1, max(sum2, sum3)) == sum3) {
            sum3 -= s3[top3++];
    return sum1;
}
int main() {
   vector<int> s1 = \{3, 2, 1, 1, 1\};
   vector<int> s2 = \{4, 3, 2\};
   vector<int> s3 = {1, 1, 4, 1};
   printf("%d\n", maxEqual(s1, s2, s3));
   return 0;
}
```