1

#include <iostream>

using namespace std;

int sumDouble(int a, int b) {

int sum = a + b;

if (a == b) {

sum = sum\*2;

}

return sum;

}

int main() {

cout<<sumDouble(1,2);

}

---------------------------------------

2

bool sleepIn(bool weekday, bool vacation) {

if(!weekday || vacation){

return true;

} else {

return false;

}

}

int main() {

std::cout<<boolalpha;

std::cout<<sleepIn(false,false);

}

---------------------------------------

3

#include <algorithm>

#include <string>

#include <iostream>

using namespace std;

string toUpper(string s){

transform(s.begin(), s.end(), s.begin(),::toupper);

return s;

}

int main(){

cout << toUpper("leo");

}

---------------------------------------

4

#include <algorithm>

#include <string>

#include <iostream>

using namespace std;

string toUpper(string s){

transform(s.begin(), s.end(), s.begin(),::toupper);

return s;

}

string endUp(string str) {

string result = "";

if(str.size()<3){

result = toUpper(str);

} else {

result = str.substr(0,str.size()-3)+toUpper(str.substr(str.size()-3));

}

return result;

}

int main(){

cout << endUp("hello");

}

---------------------------------------

5

#include <iostream>

using namespace std;

string stringTimes(string str, int n) {

string nstr = "";

int i = 0;

while(i < n){

nstr += str;

i++;

}

return(nstr);

}

int main(){

cout<<stringTimes("Hello",3);}

---------------------------------------

6

#include <iostream>

#include <string>

using namespace std;

string stringBits(string str) {

string everyOther = "";

int i = 0;

while(i < str.size()){

everyOther += str.at(i);

i+=2;

}

return(everyOther);

}

int main(){

cout<<stringBits("Leonardo Lopez");

}

---------------------------------------

7

#include <iostream>

#include <vector>

using namespace std;

int countEvens(vector<int> nums) {

int count = 0;

for(int i = 0; i < nums.size(); i++){

if (nums[i]%2 == 0){

count++;

}

}

return count;

}

int main(){

cout<<countEvens({8,10,16,17,3,4});

}

---------------------------------------

8

#include <iostream>

#include <vector>

using namespace std;

int sum67(vector<int> nums) {

int sum = 0;

for(int i = 0; i < nums.size(); i++){

if(nums[i] == 6){

while(nums[i] != 7){

i += 1;

}

}else{

sum += nums[i];

}

}

return sum;

}

int main(){

cout<<sum67({1, 1, 6, 7, 2});

}

---------------------------------------

9

#include <iostream>

#include <vector>

using namespace std;

bool haveThree(vector<int> nums) {

int count = 0;

for(int i =0; i < nums.size(); i++){

if(nums[i] == 3){

count++;

if(i+1 < nums.size() && nums[i+1] == 3){

return false;

}

}

}

if(count == 3){

return true;

} else {

return false;

}

}

int main(){

cout<<boolalpha;

cout<<haveThree({3, 1, 3, 1, 3});}

---------------------------------------

10

#include <iostream>

#include <vector>

using namespace std;

vector<int> evenOdd(vector<int> nums) {

vector<int> order;

int i = 0;

for(int num : nums){

if(num%2 == 0){

order.push\_back(num);

i++;

}

}

for(int num : nums){

if(num%2 == 1){

order.push\_back(num);

i++;

}

}

return order;

}

int main(){

vector<int> order;

order = evenOdd({3, 4, 3, 4, 3});

for(int i = 0; i < order.size(); i++){

cout<<order[i]<<", ";

}

}

---------------------------------------

11

#include <iostream>

using namespace std;

int factorial(int n) {

if(n < 1){

return(1);

}

return(n\*factorial(n-1));

}

int main(){

cout<<factorial(5);

}

---------------------------------------

12

#include <iostream>

using namespace std;

int countX(string str) {

if (str.length() == 0) return 0;

if (str.at(0) == 'x') return 1 + countX(str.substr(1));

return countX(str.substr(1));

}

int main(){

cout<<countX("xyxxyxyxxx");

}

---------------------------------------

13

#include <iostream>

using namespace std;

bool makeBricks(int small, int big, int goal) {

return((goal - big\*5) <= small && goal % 5 <= small);

}

int main(){

cout<<boolalpha;

cout<<makeBricks(3, 1, 8);

}

---------------------------------------

14

#include <iostream>

#include <vector>

#include <string>

using namespace std;

int matchUp(vector<string> a, vector<string> b) {

int count = 0;

for(int i = 0; i < a.size(); i++){

if(a[i].length() > 0 && b[i].length() > 0){

if(b[i].at(0) == a[i].at(0)){

count++;

}

}

}

return count;

}

int main(){

cout<<matchUp({"aa", "bb", "cc"}, {"aaa", "b", "bb"});

}

---------------------------------------

15

#include <iostream>

#include <string>

#include <algorithm>

using namespace std;

string toUpper(string s){

transform(s.begin(), s.end(), s.begin(),::toupper);

return s;

}

string toLower(string s){

transform(s.begin(), s.end(), s.begin(),::tolower);

return s;

}

string withoutString(string base, string remove) {

while(base.find(remove) != string::npos){

base = base.erase(base.find(remove),remove.length());

}

while(base.find(toLower(remove)) != string::npos){

base = base.erase(base.find(remove), remove.length());

}

while(base.find(toUpper(remove)) != string::npos){

base = base.erase(base.find(remove), remove.length());

}

return base;

}

int main(){

cout<<withoutString("Hello there", "llo");

}

---------------------------------------