Shri Vile Parle Kelavani Mandal's

INSTITUTE OF TECHNOLOGY

DHULE (M.S.)

DEPARMENT OF COMPUTER ENGINEERING

Subject: Competitive Programming Lab (BTCOL606)

Remark

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Class : T.Y Comp **Batch : T2** **Division: T**

Signature

Expt. No. :11 **Date :**

Title : Problem 11: Write a Program to implement Reverse and Add Problem.

Code:

```
// MOHAMMAD_ANAS_31_TY_COMP

#include <iostream>
using namespace std;


// Function to reverse the digits of a number
unsigned long long reverseNum(unsigned long long n) {
    unsigned long long rev = 0;
    while (n > 0) {
        rev = rev * 10 + (n % 10);
        n /= 10;
    }
    return rev;
}
```

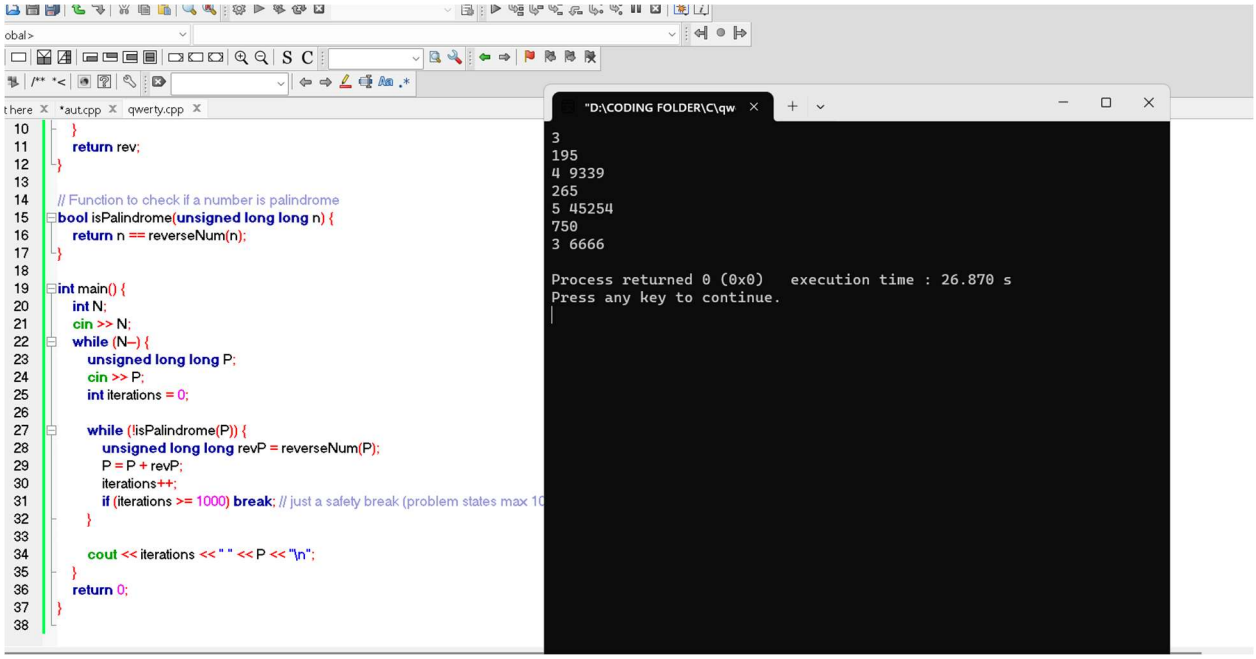
```
// Function to check if a number is palindrome
bool isPalindrome(unsigned long long n) {
    return n == reverseNum(n);
}

int main() {
    int N;
    cin >> N;
    while (N--) {
        unsigned long long P;
        cin >> P;
        int iterations = 0;

        while (!isPalindrome(P)) {
            unsigned long long revP = reverseNum(P);
            P = P + revP;
            iterations++;
            if (iterations >= 1000) break; // just a safety break (problem states max
1000)
        }

        cout << iterations << " " << P << "\n";
    }
    return 0;
}
```

Output:


there
*aut.cpp
qwerty.cpp
}
return rev;
}
// Function to check if a number is palindrome
bool isPalindrome(unsigned long long n) {
return n == reverseNum(n);
}
int main() {
int N;
cin >> N;
while (N--) {
unsigned long long P;
cin >> P;
int iterations = 0;
while (!isPalindrome(P)) {
unsigned long long revP = reverseNum(P);
P = P + revP;
iterations++;
if (iterations >= 1000) break; // just a safety break (problem states max 1
}
cout << iterations << " " << P << "\n";
}
return 0;
}
"D:\CODING FOLDER\C\qw
3
195
4 9339
265
5 45254
750
3 6666
Process returned 0 (0x0) execution time : 26.870 s
Press any key to continue.