

```

/*
Day 22:
coding Statement :
Write a program to express a number as a sum of two prime
numbers
*/
#include <iostream>
using namespace std;

bool check_prime(int n);

int main() {

    int n, i;
    bool flag = false;

    cout << "Enter a positive integer: ";
    cin >> n;

    for(i = 2; i <= n/2; ++i) {
        if (check_prime(i)) {
            if (check_prime(n - i)) {
                cout << n << " = " << i << " + " << n-i << endl;
                flag = true;
            }
        }
    }

    if (!flag)
        cout << n << " can't be expressed as sum of two prime
numbers.";

    return 0;
}

```

```
// check prime number
bool check_prime(int n) {
    int i;
    bool is_prime = true;

    // 0 and 1 are not prime numbers
    if (n == 0 || n == 1) {
        is_prime = false;
    }

    for(i = 2; i <= n/2; ++i) {
        if(n % i == 0) {
            is_prime = false;
            break;
        }
    }

    return is_prime;
}
```