

```
#include <stdio.h>
#include <math.h>

int main(){
    int a, i;
    long sum = 0;
    scanf("%d", &a);

    // Don't count 1 as its own divisor
    if(a != 1)
        sum += 1;

    for(i = 2; i < a; i++)
        if(a % i == 0)
            sum += i;

    printf("%ld\n", sum);

    // 1 is not a perfect number since it is its lone divisor
    if(sum == a && a != 1)
        printf("YES");
    else
        printf("NO");

    return 0;
}
```