lab 3

```c
// 28. PROGRAM TO CHECK WHETHER A NO IS ARMSTRONG OR NOT.
/*An Armstrong number is a positive integer that is equal to
 the sum of its own digits, each raised to the power of the
 number of digits in the number*/
#include <stdio.h>
#include <math.h>

int main()
{
    int n1, n2, rem, n = 0;
    float result = 0;

    printf("Enter a number= ");
    scanf("%d", &n1);

    n2 = n1;

    //To count the number of digits
    while (n2 != 0)
    {
        n2 /= 10;
        n++;
    }

    n2 = n1;

    while (n2 != 0)
```

```c
    {
        rem = n2 % 10;

        result += pow(rem, n);

        n2 /= 10;

    }


    if ((int)result == n1)

        printf("%d is an Armstrong number.\n", n1);

    else

        printf("%d is not an Armstrong number.\n", n1);


    return 0;

}
```