main.c

Share Run

```c
//DAY 17
//Q33
#include <stdio.h>
#include <math.h>
int main() {
    int num, original, remainder, n = 0;
    double sum = 0;

    printf("Enter a number: ");
    scanf("%d", &num);

    original = num;

    int temp = num;
    while (temp != 0) {
        temp /= 10;
        n++;
    }
    temp = num;
    while (temp != 0) {
        remainder = temp % 10;
        sum += pow(remainder, n);
        temp /= 10;
    }

    if ((int)sum == original) {
        printf("%d is an Armstrong number.\n", original);
    } else {
        printf("%d is not an Armstrong number.\n", original);
    }
    return 0;
}
```

Output

```
Enter a number: 153
153 is an Armstrong number.


=== Code Execution Successful ===
```

main.c

Share Run

```c
//DAY 17
//Q34
#include <stdio.h>

int main() {
    int num, i, isPrime = 1;

    printf("Enter a number: ");
    scanf("%d", &num);

    if (num <= 1) {
        isPrime = 0;
    } else {
        for (i = 2; i <= num / 2; i++) {
            if (num % i == 0) {
                isPrime = 0;  // divisible by i, not prime
                break;
            }
        }
    }

    if (isPrime) {
        printf("%d is a prime number.\n", num);
    } else {
        printf("%d is not a prime number.\n", num);
    }

    return 0;
}
```

Output

```
Enter a number: 7
7 is a prime number.


=== Code Execution Successful ===
```