6.Amstrong number

#include <stdio.h>

#include <stdbool.h>

#include <math.h>

bool isArmstrong(int num)

{

int originalNum = num;

int sum = 0;

int numDigits = 0;

while (num > 0)

{

num /= 10;

numDigits++;

}

num = originalNum;

while (num > 0) {

int digit = num % 10;

sum += pow(digit, numDigits);

num /= 10;

}

return sum == originalNum;

}

int main() {

int num;

printf("Enter a number: ");

if (scanf("%d", &num) != 1) {

printf("Invalid input\n");

return 1;

}

if (num < 0) {

printf("Negative numbers are not considered.\n");

return 1;

}

if (isArmstrong(num)) {

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

} else {

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

}

return 0;

}

OUTPUT





