#include <math.h>

#include <stdio.h>

int main() {

int num, originalNum, remainder, n = 0;

float result = 0.0;

printf("Enter an integer: ");

scanf("%d", &num);

originalNum = num;

// store the number of digits of num in n

for (originalNum = num; originalNum != 0; ++n) {

originalNum /= 10;

}

for (originalNum = num; originalNum != 0; originalNum /= 10) {

remainder = originalNum % 10;

// store the sum of the power of individual digits in result

result += pow(remainder, n);

}

// if num is equal to result, the number is an Armstrong number

if ((int)result == num)

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

else

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

return 0;

}