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CS111 Lab Assignment 4

Q1. WAP to print armstrong number between 1 to 500

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

int main() {
    int lower = 1, upper = 500;

    printf("Armstrong numbers between %d and %d are:\n",
lower, upper);

    for (int num = lower; num <= upper; ++num) {
        int originalNum = num;
        int sum = 0;
        int n = 0;

        while (originalNum != 0) {
            originalNum /= 10;
            ++n;
        }

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

        if (sum == num) {
            printf("%d\n", num);
        }
    }
```

```
    return 0;
}
```

```
nithin@nithin1729s:~/Desktop/CS111/Lab_3$ gcc q1.c -lm
nithin@nithin1729s:~/Desktop/CS111/Lab_3$ ./a.out
Armstrong numbers between 1 and 500 are:
1
2
3
4
5
6
7
8
9
153
370
371
407
nithin@nithin1729s:~/Desktop/CS111/Lab_3$
```

Q2) WAP that reads a positive integer and print its binary equivalent

```
#include <stdio.h>

int main() {
    int decimalNum;


    printf("Enter a positive integer: ");
    scanf("%d", &decimalNum);

    if (decimalNum < 0) {
        printf("Please enter a positive integer.\n");
        return 1;
    }

    printf("Binary equivalent: ");
    for (int i = sizeof(int) * 8 - 1; i >= 0; i--) {
        int bit = (decimalNum >> i) & 1;
        printf("%d", bit);
    }
    printf("\n");

    return 0;
}
```